

15 AUG 1904
COUNTY

Borough



of Derby.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE

YEAR 1903,

BY

William J. Howarth, M.D., D.P.H., &c.,

MEDICAL OFFICER OF HEALTH, AND MEDICAL SUPERINTENDENT OF THE
BOROUGH ISOLATION HOSPITAL.

DERBY:

RICHARD KEENE, LIMITED, PRINTERS, IRON GATE.



WITH THE

MEDICAL OFFICER OF HEALTH'S
COMPLIMENTS.



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County Borough of Derby.

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Medical Officer of Health.

WILLIAM J. HOWARTH, M.D., D.P.H., &c,

PUBLIC HEALTH DEPARTMENT,

FORD STREET, DERBY,

June 1st, 1904.

TO THE

Chairman and Members of the Sanitary Committee.

GENTLEMEN,

I beg to present herewith a Report upon the Health and Sanitary condition of the County Borough of Derby during the year 1903, this being the 27th Annual Report of the Medical Officer of Health.

I am, Gentlemen,

Yours obediently,

WILLIAM J. HOWARTH,

MEDICAL OFFICER OF HEALTH.

By order of the Local Government Board, dated March 23rd, 1891, Article 18, Section 14, it is prescribed that the Medical Officer of Health shall “prepare an Annual Report, to be made to the “end of December in each year, comprising a summary of the “action taken during the year for preventing the spread of disease, “and an account of the sanitary state of his district generally at “the end of the year. The report shall also contain an account “of the enquiries which he has made as to conditions injurious “to health existing in his district, and of the proceedings in which “he has taken part or advised under the Public Health Act, “1875, so far as such proceedings relate to those conditions; “and also an account of the supervision exercised by him or “on his advice, for sanitary purposes over places and houses that “the Sanitary Authorities have power to regulate, with the nature “and results of any proceedings which may have been so required “and taken in respect of the same during the year. It shall also “record the action taken by him or on his advice, during the “year, in regard to offensive trades, and to factories and work- “shops. The report shall also contain tabular statements (on “forms to be supplied by the Local Government Board, or to “the like effect) of the sickness and mortality within the district, “classified according to diseases, ages, and localities.”

STATISTICAL SUMMARY, 1903.

Population estimated to the middle of 1903	{	Males ... 57,858	}	Total ... 118,707
		Females ... 60,849		
Marriages ...				957
Annual rate of Persons Married per 1,000 of the population				16.1
Births ...	{	Males ... 1,565	}	Total ... 3,215
		Females ... 1,650		
Annual rate of Births per 1,000 of the population				27.1
Deaths...	{	Males ... 811	}	Total ... 1,596
		Females ... 785		
Annual rate of Mortality per 1,000...	{	Males ... 14.1	}	Total ... 13.5
		Females ... 12.9		
Excess of Registered Births over Deaths				1,619

Area.—The area of the old Borough is 3,445 acres. The acreage of the portions of Normanton, Osmaston, and Alvaston and Boulton, added to the Borough, Nov., 1901, is 1,815 acres.

Elevation.—The inhabitants of Derby reside at a mean elevation of 182 feet above sea level, the highest point being at the Borough Boundary in Burton Road, 325 ft., and the lowest at “The Siddals,” 142 ft. The elevation at the Market Place is 157 ft.

Houses.—At the Census of 1901 there were 26,625 houses, of these, 24,851 were inhabited, and of the remaining 1,774, there were, on Census night, 995 “in occupation,” that is, utilised for business or other purposes but without occupants, whilst 779 were not “in occupation.” In addition there were 228 houses in course of erection.

Density.—The mean density of the Borough was equal to 23 persons per acre. The density of the various Wards was as follows:—Abbey 31, Arboretum 75, Babington 65, Becket 74, Bridge 23, Castle 72, Dale 19, Derwent 6, Friar Gate 50, Kingsmead 82, Litchurch 19, Markeaton 50, Normanton 71, Osmaston 4, Peartree 19, and Rowditch 24, persons per acre.

Annual Rateable Value.—The rateable value of the Borough for 1903 was £540,643 for District Rate purposes, and £572,008 for Poor Rate purposes.

TABLE I.—Population, Number of Births, Total Deaths, and Deaths from certain causes, with the rates per 1,000 of the Population in the Borough of Derby for the past twenty-six years.

YEAR.	Population.	Corrected Number of Deaths.	Death-rate per 1,000 living.	Births.	Birth-rate per 1,000 living.	Deaths from seven principal Zymotic Diseases.	Zymotic rate per 1,000 living at all ages.	Deaths from Phthisis.	Phthisis Death- rate.	Infantile Mortality per 1,000 Births.	Deaths from Respiratory Diseases exclusive of Phthisis.	Res- piratory Death-rate.
1878	80,385	1,613	20.1	3,092	38.4	257	3.1	162	2.0	148	296	3.6
1879	80,385	1,970	24.5	3,139	39.4	380	4.7	147	1.8	132	407	5.0
1880	80,385	1,614	20.1	3,050	37.9	233	2.8	140	1.7	145	224	2.7
1881	81,470	1,529	18.9	3,156	38.8	166	2.03	131	1.6	129	287	3.5
1882	82,687	1,533	18.5	2,959	35.7	187	2.2	140	1.6	139	259	3.1
1883	83,922	1,549	18.6	3,074	36.6	144	1.7	146	1.7	146	263	3.1
1884	85,176	1,569	18.4	3,013	35.3	181	2.1	131	1.5	143	259	3.0
1885	86,449	1,591	18.4	3,055	35.3	132	1.5	128	1.3	138	310	3.5
1886	87,741	1,651	18.8	3,069	35.9	166	1.8	154	1.7	148	272	3.1
1887	89,052	1,683	18.9	2,858	32.9	223	2.5	146	1.6	138	247	2.7
1888	90,383	1,550	17.1	2,824	31.2	163	1.8	116	1.2	145	271	2.9
1889	91,733	1,582	17.2	2,906	31.6	133	1.4	99	1.7	147	281	3.0
1890	93,105	1,843	19.8	2,699	28.9	260	2.7	143	1.5	160	326	3.5
1891	94,422	1,765	18.7	2,885	30.6	126	1.4	139	1.5	139	158	1.7
1892	95,528	1,734	18.2	3,038	31.8	174	1.9	140	1.5	171	295	3.1
1893	96,648	1,740	18.1	3,123	32.4	190	2.0	132	1.4	155	281	2.9
1894	97,781	1,468	15.1	2,890	29.6	151	1.6	103	1.1	121	249	2.6
1895	98,927	1,669	16.9	2,909	29.4	178	1.8	105	1.1	158	254	2.6
1896	100,087	1,577	15.8	2,834	28.4	182	1.9	137	1.4	150	240	2.4
1897	101,262	1,656	16.4	2,803	27.7	173	1.8	99	.98	168	249	2.5
1898	102,448	1,756	17.2	2,860	28.0	235	2.3	133	1.3	169	257	2.6
1899	103,649	1,775	17.2	2,984	28.8	173	1.7	116	1.2	163	244	2.4
1900	104,684	1,854	17.7	2,900	27.7	247	2.4	113	1.1	173	271	2.6
1901	106,076	1,598	15.1	2,939	27.8	189	1.8	99	.94	155	220	2.8
1902	116,869	1,639	14.1	3,326	28.5	145	1.3	102	.87	126	264	2.3
1903	118,707	1,596	13.5	3,215	27.1	108	0.9	102	.86	128	210	1.8

Vital Statistics for the Year 1903.

Estimated Population.—The estimated population of the Borough at the middle of 1903 was 118,707. This total includes the inhabitants living in the parts of the Borough added in the year 1901, and also makes allowance for the probable increase in these districts. The 12 months' increase in population is thus estimated at 1,838, and is some 200 higher than the excess of births over deaths.

Marriages.—The number of marriages which were solemnized during 1903 was 957, which represents a rate of persons married equal to 16.1 per 1,000 of the population. This is an even lower rate than last year's, which was lower than any recorded since 1893, the first year of which I have a record. The following table gives information of the marriage rate for the past 10 years:—

Year.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
Number of Marriages.	876	849	908	953	961	961	1025	943	948	957
Rate.	18.0	17.2	18.2	18.9	18.8	18.6	19.6	17.8	16.3	16.1

Birth-rate.—The births registered during the year numbered 3,215, of which there were:—

	Males.	Females.	Total.	Grand Total.
Legitimate ...	1,508	1,589	3,097	3,215.
Illegitimate ...	57	61	118	

From these figures it will be seen that the illegitimate births represent 3.8 per cent. of the present total, as compared with 3.2 per cent in the previous year. In the following table is set out the distribution of all births, both legitimate and illegitimate. The ratio of illegitimate births is highest in Rowditch Ward, which was also the case last year. The numbers, however, are so small that no reliable inference can be deduced from them; they will however be of increasing value each year. The total birth-rate varies between very wide limits. It will be observed that it is as low as 17.1 per 1,000 of the population in Babington Ward. This ward last year had a rate of 18.7, which was likewise the lowest recorded in any ward in the Borough. The highest rates are observed in Osmaston,

Dale, Abbey and Normanton wards. These wards had rates of over 30 per 1,000, and last year in two of these wards, viz., Normanton and Dale, the highest rates were also recorded. Birth-rates of over 30 per 1,000 were also registered in Castle, Derwent and Markeaton wards.

TABLE II.—*Relating to Births, Legitimate and Illegitimate.*

Ward.	Births.			Birth-rate per 1,000	Illegitimate Births per 1,000 Births.
	Legitimate.	Illegitimate.	Total.		
Abbey ...	307	10	317	35.1	32
Arboretum ...	186	2	188	20.5	11
Babington ...	144	5	149	17.1	34
Becket ...	168	10	178	23.6	56
Bridge ...	113	9	122	23.3	74
Castle ...	237	10	247	30.7	41
Dale ...	178	5	183	37.0	28
Derwent ...	149	8	157	30.8	51
Friar Gate ...	230	5	235	26.7	22
King's Mead	167	7	174	23.8	44
Litchurch ...	153	8	161	18.4	50
Markeaton ...	233	10	243	32.7	41
Normanton ...	246	4	250	33.5	16
Osmaston ...	207	6	213	38.0	29
Pear Tree ...	203	4	207	28.9	20
Rowditch ...	176	15	191	23.0	80
Totals ...	3,097	118	3,215	27.1	37

The birth-rate for the whole town was 27.1 per 1,000 of the population. This is 1.4 per 1,000 less than the rate recorded last year, and likewise the registered births exceeded the deaths by a lower number than in the previous year, viz., 1,619 as against 1,687. As is only to be expected, the number of births each year exceeds the deaths, and this excess of registered births over deaths is the highest for which I have any record, with the exception of the year 1902. Although the aggregate number of births, both in 1902

and 1903, was higher than in previous years, the marked increase in the excess of births over deaths in these years is due more to the diminished number of deaths than to the increase in the number of births, for although the aggregate number of births is greater, the relative proportion to the population is a decreasing one, as I have already shown.

Particulars for previous years are subjoined :—

Year.	1895.	1896.	1897.	1898.	1899.	1900	1901.	1902.	1903.
Births.	2909	2834	2803	2860	2984	2900	2939	3326	3215
Deaths.	1669	1577	1656	1756	1775	1854	1598	1639	1596
Excess of Births over Deaths.	1240	1257	1147	1104	1209	1046	1341	1687	1619

Annual Rate of Mortality.—The total number of deaths registered during the year was 1,671, as against 1,698 in 1902, and 1,673 in 1901; of these deaths 75 were deaths of strangers, leaving a net total of 1,596 deaths occurring amongst people usually resident in the Borough, but making no allowance for Derby residents who may have died outside the town. The net death-rate therefore from all causes was 13.5 per 1,000, as against 14.1 per 1,000 in 1902, and 15.1 per 1,000 in 1901.

This is the lowest death-rate that has been recorded in the Borough. It is nearly 3 per 1,000 lower than the average rate for previous ten years. If this rate could be maintained we should have every reason to be satisfied.

Mortality in Age Groups.—At the age period 65 and upwards there were 355 deaths recorded. To this total, heart diseases contributed 53, bronchitis 46, and cancer 22. At the years between 25 and 65 there were 554 deaths, no fewer than 77 of which were attributed to phthisis. The striking incidence of phthisis in persons at this age period, which includes rather less than half the inhabitants of the Borough, is readily recognised from the fact that there only remain 25 deaths to be distributed amongst persons of all other ages. Fifty-eight out of 80 deaths from cancer were recorded at this age period. Heart diseases were responsible for 103 deaths, and chest ailments for 71. As would be expected, alcoholism, and that disease, cirrhosis of the liver, which in the large majority of

instances is due to over-indulgence in alcoholism, showed their chief incidence at this time of life and caused 21 deaths. Between 5 and 15 years of age there were only 49 deaths, 9 of these being due to tubercular diseases other than phthisis. At the age period of 1 and under 5 there were 159 deaths—tubercular diseases other than phthisis causing 19 of them; chest ailments were responsible for 37 deaths, and zymotic diseases for 30. Under 1 year of age there were 406 deaths, 83 being attributed to premature birth, 41 to diarrhoea, 36 to chest ailments, 19 to tubercular diseases other than phthisis, and 15 to zymotic diseases.

The following table shows the death-rates at these varying groups of ages, the variation being between such wide limits as 1.97 per 1,000 among the individuals living at ages between 5 and 15, and 80.16 at ages 65 and upwards. It is obvious from this table that the age distribution of the population must have an important bearing

Estimated population, number of deaths, and death-rates at varying age groups in the Borough of Derby during the year 1903.

Age groups.	Deaths registered.	Estimated Population.	Death-rate per 1,000 living at each age group.
Under 5 	565	13,127	43.04
5 and under 15 ...	49	24,993	1.97
15 „ „ 25 ...	73	24,237	3.01
25 „ „ 65 ...	554	51,921	10.68
65 and upwards ...	355	4,429	80.16
Totals 	1,596	118,707	13.45

upon the recorded death-rate, for if two towns could be found identically the same as regards sanitary condition, but with different age constitution, the town which had the relatively larger portion of its population between the ages 5 and 65—as is the case in an essentially working-class town like Derby—would have a lower death-rate than the one with a lower proportion of inhabitants at these years, as is found in residential districts to which people remove after having

retired from business, and so, in comparing the relative healthiness of different towns, it is necessary that some correction should be made for the different age constitutions of the various towns. This work has been done by the Registrar General, and in a subsequent table the corrected death-rate, which is therein referred to, means the death-rate which would have been recorded if the age constitution of the town had been identical with that found to exist in the country as a whole, and thus all towns are placed on an identical basis for comparison by means of the corrected death-rate. Another correction is made for sex, the death-rate amongst males and females at the same age periods being slightly different.

Vital Statistics compared with those recorded in other towns.

The following table gives particulars respecting all the towns in England containing populations estimated at over 100,000. In previous years these comparisons have been made amongst what were termed the 33 large towns, but this tabulation has now been altered, and the Registrar General compares 76 towns. Out of these 76, I have taken the towns containing populations of at least 100,000 for comparative purposes. It will be observed that the recorded death-rate attributed to Derby is 13.59. This is rather higher than my own estimate, the difference being due to the fact that in every case of a death in a public Institution I cause an enquiry to be made as to the home of the deceased, and if originally resident outside the Borough before coming to the Derby Institution for treatment, I regard the death as that of a stranger. This is not done by the Registrar General; only those deaths of strangers which are so stated on the local Registrar's returns are regarded by that official as strangers. The majority of these are accidental deaths in the streets, or on the railway, or are deaths of persons brought to the Infirmary for treatment. The corrected death-rate for Derby is 14.65, and it is this figure which should be taken for comparisons with other towns. On that basis, Derby is tenth on the list of the towns given, and that rate must be regarded as extremely satisfactory, inasmuch as it is below the rate recorded for the whole country, and much lower than the average recorded in this town. The comparative mortality figure for Derby is 951, that is to say, if among a certain population living in England and Wales a thousand deaths were registered in any 12 months, only 951 would have been registered among that population if they had lived under the conditions which

obtain in Derby. A glance at the column which deals with the death-rate from the seven principal Zymotic Diseases shows that only two of these towns have a lower rate from this class of ailment,

TABLE III.—Vital Statistics of Towns containing populations estimated at over 100,000 for the year 1903.

TOWNS.	Standard Death-rate.	Recorded Death-rate 1903.	Corrected Death-rate 1903.	Comparative Mortality Figure 1903.	Death-rate from the seven principal Zymotic Diseases.	Deaths under 1 year to 1,000 births.	Annual Death- rate.	
							Aged 1 to 60 years.	Aged 60 years and upwards
England & Wales	18.21	15.41	15.41	1,000	...	...	...	...
Leyton ...	17.69	10.80	11.12	722	1.64	103	5.3	44.7
East Ham ...	17.06	10.96	11.70	759	1.62	111	5.5	52.5
Walthamstow ...	17.20	11.10	11.75	762	1.90	113	5.4	56.5
Croydon ...	17.75	11.83	12.14	788	1.08	108	5.6	52.7
Willesden ...	16.98	12.11	12.99	843	1.96	117	6.1	56.9
Southampton ...	18.30	13.78	13.71	890	1.31	116	6.6	60.1
Tottenham ...	16.87	13.03	14.06	912	1.89	124	6.4	61.0
Brighton ...	18.47	14.27	14.07	913	0.85	114	7.0	58.4
Norwich ...	19.04	15.23	14.57	945	1.13	150	6.1	65.6
Derby ...	16.89	13.59	14.65	951	0.87	128	6.6	66.5
Bristol ...	17.73	14.28	14.67	952	1.08	116	7.4	60.4
Portsmouth ...	17.75	14.75	15.13	982	1.50	114	7.6	62.4
Leicester ...	17.05	14.21	15.18	985	1.46	160	6.7	60.4
Cardiff ...	16.74	13.99	15.22	988	1.32	122	7.7	63.5
Plymouth ...	18.68	16.51	16.09	1,044	1.16	144	8.0	66.6
Halifax ...	16.78	15.02	16.30	1,058	0.72	122	7.5	78.6
West Ham ...	17.03	15.26	16.32	1,059	2.65	146	7.9	64.8
London ...	17.32	15.67	16.48	1,069	1.77	131	8.5	62.9
Hull ...	17.78	16.92	17.33	1,125	2.19	162	8.7	62.3
Gateshead ...	17.27	16.73	17.64	1,145	1.87	159	8.2	68.7
Blackburn ...	16.10	15.73	17.79	1,154	1.49	157	7.9	78.2
Nottingham ...	17.28	16.93	17.84	1,158	2.01	165	8.4	66.7
Birkenhead ...	17.06	16.76	17.89	1,161	2.07	156	8.6	68.1
Leeds ...	16.68	16.56	18.08	1,173	1.76	153	8.8	68.9
Bradford ...	16.47	16.39	18.12	1,176	1.36	148	8.5	78.5
South Shields ...	17.19	17.18	18.20	1,181	1.09	131	9.4	80.8
Rhondda ...	16.55	16.56	18.22	1,182	2.46	158	8.3	65.6
Birmingham ...	16.92	17.78	19.13	1,241	2.32	159	9.3	74.0
Bolton ...	16.09	17.46	19.76	1,282	1.99	152	9.8	82.8
Sheffield ...	16.89	18.62	20.08	1,303	3.10	182	9.6	71.0
Preston ...	16.63	18.68	20.45	1,327	3.09	161	9.8	79.8
Sunderland ...	17.66	19.94	20.56	1,334	2.37	157	11.2	71.6
N'wc'stle-on-Tyn	16.88	19.22	20.73	1,345	1.22	165	10.8	75.6
Oldham ...	16.18	18.62	20.96	1,360	2.34	160	10.9	75.4
Salford ...	16.47	18.97	20.97	1,361	2.86	167	10.7	72.8
Liverpool ..	17.02	20.48	21.91	1,422	2.51	159	11.6	78.3
Manchester ...	16.30	19.72	22.03	1,430	2.54	169	11.1	78.8

viz., Halifax 0.72, and Brighton 0.85. The infantile mortality—128 per 1,000 births—is lower in 12 other towns, nevertheless, the rate recorded is an extremely satisfactory one, and one which I should like to see maintained. The death-rate at ages 1 to 60 is low, and of course the death-rate from 60 upwards is comparatively high.

District Mortality Rates.—In table IV. the various mortality rates which have been recorded in the different wards into which the town is divided are set out, the deaths in the public Institutions having been relegated to the Wards to which the various persons belonged before they were removed. Judged by the general death-rates, the healthiest wards were Osmaston with a rate of 9.9, Pear Tree 10.6, Litchurch 11.1, and Bridge Ward 11.7, whilst the unhealthiest wards were King's Mead, which enjoys the unenviable notoriety of being the only ward in the town in which a death-rate of over 20 per 1,000 was recorded, and Castle Ward, with a rate coming disagreeably near that total, viz., 19.5. In none of the other wards can the mortality be considered excessive, Becket Ward 15, Normananton, Dale and Abbey Wards 14, having the highest rates. The Zymotic rate was highest in King's Mead Ward, being two per 1,000, and lowest in Osmaston Ward, only one death being recorded from this class of disease amongst an estimated population of over 5,000. The highest Respiratory rate was likewise in King's Mead Ward, and the lowest in Babington Ward. The Phthisis rate was highest in King's Mead Ward, and lowest in Arboretum and Rowditch. The infantile mortality was again highest in King's Mead Ward, this ward being the only one to show a death-rate of over 200 per 1,000 births. With the exception of Arboretum, Becket, and Castle Wards, the other wards showed no excessive mortality under this heading, the lowest being Litchurch with a death-rate of 81 per 1,000 births.

TABLE IV.—Population, Density, Deaths, and certain Death Rates in the various Wards of the Borough of Derby for the Year 1903.

WARDS.	Population in 1901.	Estimated population at middle of 1903.	Acreage	Density in persons per acre.	Total Deaths.	Death rate per 1,000 living.	Deaths from seven principal Zymotic Diseases	Zymotic death rate.	Deaths from Respiratory Diseases exclusive of Phthisis.	Respiratory death rate.	Deaths from Phthisis.	Phthisis death rate.	Number of deaths of infants under 1 year.	Deaths of infants under 1 year of age per 1,000 births.
Abbey ...	8,747	9,040	285	31	128	14.2	14	1.6	26	2.9	10	1.2	39	123
Arboretum ...	8,889	9,186	122	75	110	12.0	6	0.7	14	1.6	5	0.6	30	160
Babington ...	8,447	8,730	134	65	110	12.6	3	0.4	7	0.8	7	0.8	19	121
Becket ...	7,297	7,542	102	74	114	15.2	5	0.7	17	2.3	5	0.7	25	141
Bridge ...	5,081	5,250	229	23	61	11.7	4	0.8	11	2.1	6	1.2	13	107
Castle ...	7,786	8,048	112	72	157	19.5	12	1.5	13	1.7	10	1.3	43	175
Dale ...	4,785	4,944	269	19	72	14.6	5	1.1	3	0.7	4	0.9	22	121
Derwent ...	4,933	5,099	907	6	67	13.2	6	1.2	7	1.4	4	0.8	20	121
Friargate ...	8,516	8,802	176	50	109	12.4	10	1.2	15	1.7	9	1.1	30	128
King's Mead	7,064	7,317	90	82	159	21.8	14	2.0	27	3.7	11	1.5	36	207
Litchurch ...	8,474	8,754	462	19	97	11.1	1	0.2	14	1.6	6	0.7	13	81
Markeaton ...	7,200	7,441	151	50	96	12.9	10	1.4	19	2.6	4	0.6	27	112
Normanton ...	7,225	7,466	106	71	105	14.1	8	1.1	11	1.5	7	1.0	36	144
Osmaston ...	5,429	5,611	1,381	4	55	9.9	1	0.2	10	1.8	4	0.8	10	47
Pear Tree ...	6,930	7,163	392	19	76	10.6	6	0.9	8	1.1	5	0.7	22	107
Rowditch ...	8,045	8,314	354	24	80	9.7	3	0.4	8	1.0	5	0.6	21	110
*Institutions	...	...	...	...	309	...	9	...	30	...	14	...	...	...
Non-Residents	...	...	...	...	75	...	1	...	8	...	2	...	5	...
†Totals ...	114,848	118,707	5,272	23	1,596	13.5	108	0.91	210	1.8	102	0.86	411	128

*The deaths in Institutions have been relegated to the various Wards.

†Excluding Non-Residents.

TABLE V.—Causes of all Deaths registered in each of the ten years,
1893—1902. in 1903, and the average for the decennial period.

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	Average.	1903
ALL CAUSES ..	1772	1490	1698	1620	1720	1830	1856	1932	1673	1698	1728	1671
Small Pox	7	...	8	...	...	...	...	...	...	...	1.5	2
Measles	15	59	6	32	17	53	24	97	..	38	34.1	5
Scarlet Fever	14	15	8	11	9	20	25	22	17	8	14.9	8
Influenza	42	16	30	17	27	26	64	58	27	25	33.2	27
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	44	15	22	47	23	28	9	52	29	29	29.8	32
Diphtheria	6	5	6	11	9	9	8	9	20	13	9.6	3
Ill-defined Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	21	26	18	20	26	28	15	21	23	13	21.1	8
Simple Cholera	1	...	1	...	3	...	...	...	...	...	..	...
Diarrhœa, Dysentery	83	31	110	63	89	97	95	50	104	45	76.6	51
Venereal Affections	9	4	6	3	4	6	7	2	3	5	4.9	5
Erysipelas	3	2	1	1	2	3	3	3	3	2	2.3	8
Pyæmia and Septicæmia	4	2	...	3	6	4	6	1	3	...	2.9	1
Puerperal Fever	6	3	2	3	2	8	1	5	2	6	3.8	5
Other Zymotics ... ..	...	...	...	1	...	...	...	...	5	6	1.2	...
Parasitic Diseases	1	...	...	...	...	2	1	3	1	...	.8	1
Intemperance	3	5	4	5	5	3	13	6	6	3	5.3	7
Rheum. Fever & Rheum of Heart	6	6	3	4	2	5	4	1	3	5	3.9	1
Rheumatism	5	4	4	3	3	4	4	2	1	5	3.5	4
Cancer	67	57	58	61	91	79	66	95	80	82	73.6	89
Tabes Mesenterica	25	19	31	23	21	12	15	16	14	14	19.0	11
Tubercular Meningitis	11	8	8	10	15	14	13	8	6	9	10.2	23
Phthisis... ..	132	103	105	137	99	133	119	116	99	103	114.0	104
Scrofula & other Tuber- cular Diseases	17	20	19	16	15	22	18	17	22	31	19.7	31
Other Constitutional Diseases	116	88	126	104	116	87	33	17	14	18	71.9	30
Premature Birth	54	39	51	51	54	59	71	74	72	61	59.6	84
Devel. Dis. & Cong. Def.	2	4	8	7	7	7	17	14	15	13	9.4	18
Old Age	123	106	113	107	116	104	100	124	120	117	113.0	99
Apoplexy and Paralysis	36	39	34	51	53	87	69	83	70	70	59.2	104
Epilepsy	9	9	8	11	7	7	12	11	14	2	9.0	3
Convulsions	104	73	100	86	62	83	104	80	55	70	82.2	89
Brain and Nerv. Dis. (other)	100	106	127	92	104	67	72	65	78	65	87.6	66
Organs, Special Sense Dis. of ... ..	...	...	...	1	...	4	5	8	2	5	2.5	6
Heart Diseases	142	138	170	163	173	184	194	191	165	213	173.3	182
Croup	8	5	4	5	7	1	4	2	...	...	3.6	2
Bronchitis	175	140	155	135	140	145	141	146	141	155	149.3	117
Pneumonia	81	77	71	76	81	86	104	99	68	82	82.5	80
Lung and Respiratory Dis. (other)	25	32	28	29	28	25	30	27	22	31	27.7	21
Teething	36	19	12	6	30	18	8	17	11	14	17.1	9
Quinsy ... ..	...	...	...	...	...	...	...	...	3	1	.4	...
Digestive Org. Disease	101	96	112	102	137	116	134	112	118	90	111.8	100
Urinary Org. Diseases	38	32	38	44	51	35	45	44	42	49	41.8	42
Parturition	12	8	10	9	6	3	2	10	7	5	6.2	7
Generative Org. Disease	2	4	3	6	5	11	18	3	8	10	7.0	4
Other Local Diseases ..	18	11	8	8	12	16	11	23	14	14	13.5	22
Accident	41	49	43	42	46	48	54	62	60	67	51.4	55
Homicide ... ..	...	...	...	3	...	...	...	1	...	...	.4	1
Suicide	10	14	10	5	2	10	15	12	8	5	9.1	15
Execution ... ..	...	...	...	1	...	1	...	...	...	1	.3	...
Other Causes	17	1	17	5	15	65	103	123	98	98	54.4	89

Inquests.—I am informed by the Borough Coroner that the number of inquests held by him during the year ending Dec. 31st, 1903, was 178, being made up by 124 held on males, and 74 on females. There were no unregistered deaths in the Borough. The cause of every death was certified by a medical practitioner or by the Coroner.

Mortuary.—The Coroner's Officer, Mr. John Dexter, informs me that the number of dead bodies which were received in the mortuary during 1903 was 16, and also that 6 post-mortem examinations were conducted in that building. He states that several repairs require attention, as well as the renewal of the paint on both internal and external woodwork.

Comparative Statement of the causes of Death.—For the first year since 1895, deaths were registered from small-pox. Measles, scarlet fever and influenza were below the past 10 years' average. There was a marked decrease in the mortality from diphtheria, enteric fever and diarrhoea, with a slight increase in the mortality from whooping cough. Erysipelas and puerperal fever also showed increased mortality. Deaths from intemperance were slightly in excess of the 10 years' average; cancer was also in excess, whilst there was a decrease in respect to phthisis, there was an increase in premature births, and in the deaths from congenital defects. Deaths from cerebral trouble showed an excess over previous years, and likewise deaths from heart diseases, whilst deaths from chest ailments showed a distinct decrease. Deaths occurring during the parturient period were about the average. Accidents showed a slight increase, whilst there was a marked increase in the deaths attributed to suicide.

The facts above stated are set out numerically in table, V. whilst in table VI. the total deaths registered in the Borough are sub-divided into the various causes, and enumerated under the different age periods. These tables are capable of comparison with those contained in previous Annual Reports.

TABLE VI.—DEATHS REGISTERED IN THE COUNTY BOROUGH OF DERBY FROM ALL CAUSES
AT VARIOUS AGE PERIODS DURING THE YEAR 1903.

DISEASES.	AGES IN YEARS.																								Total.	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards.
	AGES IN YEARS.																													
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and upwards.								
I. ZYMOTIC DISEASES	65	19	5	10	6	4	1	4	5	4	4	3	5	1	4	4	5	1	3	2	...	...	155	40	5	9	30	6
II. PARASITIC DISEASES	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
III. DIETETIC DISEASES	...	...	...	...	...	...	...	...	...	...	...	3	...	1	2	1	...	...	...	...	...	...	7	...	...	...	7	...
IV. CONSTITUTIONAL Dis.	24	17	3	2	2	8	5	8	16	17	21	19	20	23	24	23	29	17	9	5	1	...	293	24	13	24	176	32		
V. DEVELOPMENTAL Dis.	101	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	13	13	29	27	15	201	...	...	2	97	
VI. LOCAL DISEASES ...	138	63	14	9	4	12	16	17	21	24	33	31	35	46	57	45	66	72	75	50	21	5	854	90	28	38	337	223		
VII. VIOLENCE ...	6	...	7	...	1	6	2	4	3	3	4	2	4	6	6	1	7	3	2	2	1	1	71	8	8	7	33	9		
VIII. ILL-DEFINED CAUSES	76	33	1	...	...	...	...	...	...	1	...	3	...	...	...	...	2	2	1	...	...	...	89	4	...	...	6	3
ALL CAUSES	411	102	30	21	13	30	25	33	45	49	62	61	64	77	93	75	110	108	103	88	50	21	1671	166	55	78	591	370		
I. Zymotic Diseases.																														
I. MIASMATIC DISEASES.																														
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	1	...
Measles ...	1	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	13	9	2	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mumps ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Simple and ill-defined Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	1	2	2	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
2. DIARRHOEAL DISEASES:																														
Diarrhoea, Dysentery ...	41	5	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	51	8	...	...	...	2
3. VENEREAL DISEASES:—																														
Syphilis ...	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	...	...	...	...

DEATHS registered in the County Borough of Derby, from all causes at various age periods during the Year 1903.

DISEASES.	AGES IN YEARS.																							Total.	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 and upwards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
4. SEPTIC DISEASES — Erysipelas ... Pyæmia Septicæmia ... Puerperal Fever ...	3	...	...	...	...	...	...	1	1	...	...	...	...	2	...	...	...	...	...	...	...	...	8	1	5	...	...	...	5	...	3	...	...	...	25 to 65	65 and upwards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
II. Parasitic Diseases Thrush ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
III. Dietetic Diseases {Chr. Alcoholism ... Intem. { Delirium Tremens..	...	...	...	...	...	...	...	...	...	...	3	...	1	1	1	...	...	...	...	...	...	...	6	1	...	...	...	...	...	...	...	...	...	...	...	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
IV. Constitutional Diseases. Rheum. Fev., Rheum. Heart... Rheumatism ... Gout ... Rickets ... Cancer ... Tabes Mesenterica ... Tuber. Mening. (Hydroceph.) Phthisis ... Other forms of Tuberc. Scrofula Purpura ... Anæmia, Chlorosis, Leucocyth : Diabetes Mellitus ... Other Constitutional Diseases...	1	1	1	4	2	3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
VI. Local Diseases.																												
1. DIS. OF NERV. SYSTEM																												
Inflam. of Brain or its Mem. ...	6	5	...	...	1	2	5	...	...	...	1	1	1	1	1	...	...	...	16	...	...	...	23	6	7	...	4	...
Apoplexy ... ..	...	...	...	...	...	...	...	...	...	1	...	2	2	5	7	7	...	...	11	11	5	1	83	...	...	...	35	48
Softening of the Brain...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	2	...	...	...	...	...
Hemiplegia, Brain Paralysis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	2	...	...	21	...	...	...	7	14
Paralysis Agitans ... ..	...	...	...	...	...	...	...	...	...	...	...	...	3	2	2	3	...	...	1	...	...	...	1	...	...	...	...	1
Insanity, Gen. Par. of Insane...	...	...	...	...	...	...	...	...	...	...	1	2	3	1	1	3	...	...	...	...	...	15	...	...	...	...	13	2
Epilepsy... ..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	23	...	...	...	...
Convulsions	65	19	4	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	89	...	...	...	...	...	...
Paraplegia, Disease of Spinal Cord ...	...	...	...	...	...	1	...	...	...	...	1	...	...	2	...	...	2	1	...	1	...	...	8	...	...	...	5	2
Other Diseases of Nervous Sys.	...	...	...	...	...	1	...	1	...	...	...	1	2	2	2	2	2	3	...	1	1	17	...	...	1	1	10	5
2. ORGANS OF SPECIAL SENSE (Diseases of)																												
Otitis, Otorrhoea	2	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	3	...	...	...
Ophthalmia and Diseases of Eye	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...
3. CIRCULATORY SYSTEM (Diseases of)																												
Endocarditis ... ..	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	...	...	...	3	...	...	2	...	...	...
Valvular Disease ... ..	...	...	...	...	...	...	...	1	...	3	...	2	1	2	3	...	1	1	1	...	...	15	...	...	...	12	...	2
Pericarditis ... ..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Angina Pectoris ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	2	...	...	...	...	...	1
Syncope	1	...	...	...	...	...	...	1	...	...	2	1	3	2	5	2	6	2	6	1	1	34	...	...	...	...	21	11
Senile Gangrene ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	3	...	...	...	...	1	2
Other Dis. of Circulatory Sys.	...	1	...	...	...	1	2	3	7	5	12	5	5	7	9	15	11	16	16	8	1	124	...	1	3	10	69	41
4. RESPIRATORY SYSTEM (Diseases of)																												
Croup ... ..	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...
Emphysema, Asthma ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	3	...	...	...	...	3	...
Bronchitis	22	11	3	2	1	...	...	...	1	...	2	1	2	4	8	3	11	14	12	14	3	117	...	17	...	...	31	46
Pneumonia	14	15	2	4	1	...	1	3	3	2	5	3	6	4	5	2	3	2	2	3	...	80	...	22	1	6	30	7
Pleurisy ... ..	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	...	1	...	1	1	...	6	...	...	1	...	3	2
Other Dis. of Respiratory Sys.	3	1	...	...	...	...	...	...	...	2	1	...	1	1	...	1	...	2	...	...	...	12	...	1	...	...	6	2
5. DIS. OF DIGESTIVE SYSTEM.																												
Dentition	5	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	4	...	...	...	...
Haematemesis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1
Diseases of Stomach	6	2	...	...	...	...	...	...	1	3	...	...	...	2	1	1	1	1	1	2	...	21	...	...	...	...	8	4
Enteritis	8	2	1	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	14	...	3	2	1	...	...

DEATHS registered in the County Borough of Derby, from all causes at various age periods during the Year 1903.

DISEASES.	AGES IN YEARS.																					Total.	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards.
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85							85 and upwards.
Obstruction of Intestine	1	...	...	...	...	...	2	...	1	1	...	1	...	...	...	...	...	...	...	...	...	6	...		
Intussusception of Intestine	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Hernia	2	...	1	...	2	...	...	1	...	2	1	...	10	...	4		
Peritonitis	2	1	1	2	...	1	...	1	2	1	...	...	...	...	...	...	...	...	...	11	...	...
Cirrhosis of Liver	1	1	3	1	6	1	3	1	1	1	...	1	...	18	...	3		
Other Diseases of Liver	1	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	4	...	...	...
Other Diseases of Digest. Syst.	2	...	...	...	...	1	3	...	...	...	2	...	...	...	1	...	...	2	1	...	1	...	14	...	4
6. LYMPH: SYSTEM AND DUCTLESS GLANDS (Diseases of).																											
Diseases of Lymphatic System	1	...	...	...	...	...	...	...	...	...	1	...	2	...	...	1		
Bronchocele	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
7. URINARY SYSTEM (Diseases of)																											
Acute Nephritis	...	2	...	...	...	...	...	4	...	...	...	...	...	...	...	...	1	2	...	...	...	9	...	...	2
Bright's Disease	1	...	1	1	2	...	2	2	2	3	3	1	1	1	...	22	...	...	6		
Uræmia	1	...	...	...	...	2	...	...	1		
Suppression of Urine	1	...	...	1	...	...	1		
Dis. of Bladder and Prostate	1	...	...	...	5	...	...	7	...	...	6		
Other Diseases of Urinary Sys.	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
8. Dis. OF REPRODUCTIVE SYSTEM.																											
A. Generative Organs, Dis. of Ovarian Diseases	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Diseases of Uterus and Vagina	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
B. Parturition, Diseases of	1	...	...	...	...	...	...	...	...	2	...	...	...
Puerperal Convulsions...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Placenta Prævia, Flooding	2	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...
Other Accidents of Childbirth	1	...	1	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
9. DISEASES OF LOCOMOTOR SYSTEM.																											
Caries, Necrosis	1	1	...	1	1	...	1	...	...	...	...	1	...	...	...	...	6	...	...	...
Arthritis, Osteitis, Periostitis ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...	5	...	...	...	...

The Notification of Infectious Diseases.—The total number of notifications of existence of infectious diseases forwarded under the Infectious Diseases Notification Act, 1890, was 529, as compared with 589 in the previous year, and 867 in 1901.

The highest and lowest weekly incidences were as follows:—

Week ending.	1903.	Cases notified.
24th January	... highest number	... 27
22nd August	... lowest number	... 2

In addition to the compulsorily notifiable diseases, notifications of Phthisis were received under a scheme of voluntary notification which came into operation last year, and 119 cases of this disease were thus brought to my notice. A distinct decrease in the notifications is to be observed in the case of Scarlet Fever and Enteric Fever. There is an increase in the cases of Diphtheria and Erysipelas, which is the most pronounced in the latter disease. Small Pox was responsible for nearly 50 notifications. The following table shows that the largest number of cases was notified during the first quarter, during which period both Small Pox, Scarlet Fever, and Diphtheria showed their principal incidence. Particular interest attaches to the fourth quarter, inasmuch as more than 50 per cent. of the cases of Erysipelas were then notified, the notifications equaling the average in each of the previous three years. No cases of Small Pox were notified during the fourth quarter. Puerperal Fever showed its principal incidence in that quarter.

Cases of Infectious Disease notified during 1903.

Quarters.	Totals.	Small Pox.	Scarlet Fever.	Diphtheria	Continued Fever.	Enteric Fever.	Erysipelas	Puerperal Fever.
First ...	198	34	89	39	1	19	15	1
Second...	96	13	34	14	1	11	20	3
Third ...	89	1	19	12	...	24	29	4
Fourth ...	146	...	43	18	...	8	71	6
Year...	529	48	185	83	2	62	135	14

TABLE VII.—Number of cases of Infectious Disease notified in the Borough of Derby for 1903, and for each year since 1881.

DISEASES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Small Pox	46	15	2	7	...	...	...	20	...	5	...	11	52	3	94	1	1	...	...	1	1	8	48
Scarlet Fever	423	770	506	389	232	167	64	756	775	346	318	470	501	513	364	427	432	481	885	602	616	332	185
Diphtheria	6	10	8	...	1	6	27	23	46	81	66	67	50	46	43	45	57	74	60	52	74	63	83
Enteric & Cont. Fever	95	113	51	344	57	162	105	163	99	64	66	55	111	104	99	104	125	159	141	125	114	85	64
Typhus Fever	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	6	6	7	11	2	1	1	3	5	1	8	9	11	7	10	3	3	6	8	7	10	13	14
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	67	52	88	135
Phthisis*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	57	119
Totals	577	914	574	751	292	336	197	965	925	497	458	612	727	673	610	580	618	720	1094	854	867	646	648

In addition to the above, the following cases of measles were also notified during short periods of voluntary notification :—1884, 513 cases; 1887, 874 cases; 1888, 33 cases; also 34 cases of Scarlet Fever, and 3 cases of Enteric Fever from the annexed areas during 1901.

*Phthisis became a notifiable (voluntary) disease in July, 1902.

Preventive measures adopted against the spread of Infectious Diseases.—The following is a summary of the work done in this direction.

Cases isolated :—

Small Pox in the Borough Sanatorium			
Scarlet Fever	„	„	„
Enteric Fever	„	Royal Infirmary	...
Diphtheria	„	„	„
Puerperal Fever	„	„	„
Totals	...	...	...

QUARTERS.				
First.	Second.	Third.	Fourth.	Totals.
33	13	1	...	47
4	13	10	35	62
13	5	19	5	42
5	4	4	8	21
...	1	3	1	5
55	36	37	49	177

Cases desiring removal, but for which no accommodation could be found :—

Scarlet Fever	...	...	...
Diphtheria	...	...	...
Enteric Fever	...	...	...
Totals	...	...	...

53	9	...	3	65
1	...	1	2	4
...
54	9	1	5	69

Cases in which removal was delayed owing to want of accommodation :—

Scarlet Fever	...	...	...
Diphtheria	...	...	...
Enteric Fever	...	...	...
Totals	...	...	...

1	2	...	3	6
1	...	...	...	1
...
2	2	...	3	7

Inspectors' visits to Cases of Infectious Disease numbered

1307	417	196	296	2216
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Hospital for Infectious Diseases.—During the early part of the year, the outbreak of Small Pox which originated at the end of 1902 became sufficiently serious to necessitate the removal of all cases of Scarlet Fever from the Hospital in order to prepare it for the reception of Small Pox cases. As you are aware, no separate Hospital exists for the treatment of this disease, and it is my practice

to reserve one half of the observation block for the reception of such isolated cases of Small Pox as may be notified. I have found it possible by using the whole of the observation ward to accommodate about seven persons, viz., four of one sex and three of another, without interfering with the cases of Scarlet Fever, but this method of dealing with the disease involves some little anxiety, inasmuch as the laundry and administrative block are common to the whole institution. Although for several years I have succeeded in thus isolating cases of Small Pox without any untoward result as regards Scarlet Fever patients in the other blocks, it necessitates careful and constant supervision, for any negligence in observing the strict regulations which I have laid down might be followed by distinctly disagreeable results. When it appears probable, as in 1903, that an outbreak of the disease will not be limited to the first two or three cases notified, it then becomes necessary to prepare one of the wards usually used for Scarlet Fever patients for the reception of Small Pox cases, and to enable this to be done, patients in a convalescent stage are returned home. They are passed through the discharge block and their clothing is carefully disinfected. As a rule no extension of the disease follows this step, nevertheless, the practice, as I have stated in previous reports, is highly undesirable, not only from the point of view of the administrative difficulties which result from the treatment of two infectious diseases on the same site, but also from the fact that during the periods that the Hospital is entirely used for Small Pox it not unfrequently happens that cases of Scarlet Fever are notified in respect to which there are urgent circumstances which make it extremely desirable that the case should be removed from the house and isolated as soon as possible, an instance of such being, a woman expecting her confinement during the time the case of Scarlet Fever will be under treatment at home. The risks to which the woman is exposed under such circumstances are generally admitted as being considerable and serious. I have again to express my appreciation to Sister Moulds and the whole of the resident staff for their assistance and co-operation, which have materially helped in promoting the efficiency of the Hospital.

The following table shows the number of cases of Scarlet Fever and Small Pox which have been isolated in the Borough Hospital since it was opened in 1890.

Year.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Scarlet Fever.	80	111	168	58	200	167	306	338	324	497	446	438	217	62
Small-Pox.	5	...	10	52	3	94	2	1	...	...	1	1	8	47
Total.	85	111	178	110	203	261	308	339	324	497	447	439	225	109

The average length of stay in Hospital was 46 days for Scarlet Fever, as compared with 46, 47, and 48 days in the three previous years. The longest time any patient remained under treatment was 100 days. The average duration of treatment of Small Pox patients was 37 days. The deaths numbered 2.

The cost of provisioning the Hospital and other details respecting the same, are contained in the subjoined table.

Hospital Provisioning 1903.

1903.	Days of treatment.	Average Patients per day.	Cost of Provisioning.			Average cost per Patient per day.*	
			£	s.	d.	s.	d.
1st Quarter	1,586	17.62	119	4	8½	1	6
2nd „	1,104	12.13	102	17	3	1	10¼
3rd „	477	5.18	66	6	9½	2	9½
4th „	1,304	14.17	86	17	5½	1	4
	4,471	12.24	375	6	2½	1	8¼

*This includes cost of provisioning staff, but does not include working days of staff.

Mortality from Zymotic Diseases.—

Zymotic Mortality during the past five years.

Years.	Ten Years' Average.	1899	1900	1901	1902	1903.		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1,000	1.8	1.7	2.4	1.8	1.2	0.9	1.46	1.89

The total deaths from the seven principal Zymotic diseases numbered 108, in which total there is included the death of one stranger from Enteric Fever. This represents a death-rate of 0.9 per 1,000,

which is the lowest recorded in the Borough from this class of disease. It compares favourably with the death-rate for the previous four years, and is only half of the previous ten years' average. It is likewise considerably less than the mortality recorded in England and Wales during the whole year, and in the 76 great towns. The diseases which are included under this heading are Small Pox, Measles, Scarlet Fever, Whooping Cough, Diphtheria, Enteric Fever and Diarrhoea. Each of these diseases will subsequently receive separate consideration, and it is only necessary to mention here that Whooping Cough and Diarrhoea caused 32 and 51 deaths respectively, or a total of 83 out of a grand total of 108 deaths.

Small Pox :—

Mortality from Small Pox during the past five years.

Years.	Ten Years' Average	1899	1900	1901	1902	1903.		
						Derby.	England and Wales.	76 Great 'Towns.
Rate per 1000	0.02	...	...	...	...	0.02	0.02	0.03

During the year, 48 cases of Small Pox were reported, three of which were cases brought from outside districts into the Borough Hospital for treatment, leaving 45 Borough cases. Amongst these there were two deaths, one an unvaccinated child six months old, and the other a man aged 61, who was suffering from Hemiplegia as well as Small Pox, the latter disease being in a very mild form, and it is probable that the death should be attributed to the former rather than the latter.

Of these cases, one was a contact infected by the patients who were reported at the end of 1902, and to which reference was made in the last annual report. The remaining cases represent the total arising from several importations, the circumstances attending each series being as follows :—

Case 6 was that of a child six months old, which came under my notice on January 5th, when a diagnosis of Small Pox was made ; it was extremely ill and died during the night. The child had been ill for at least a week, perhaps longer, and many persons had been in the house, of course in ignorance of the real nature of the disease. The funeral took place the following day with all necessary precautions. The names of various visitors, and the date of contact were ascertained ; the persons were immediately visited, vaccination

or revaccination was suggested, and in the majority of instances the operation was accepted.

It will be seen from the table appended to this portion of the report that a large number of persons subsequently developed Small Pox as a result of either direct or indirect contact with this case.

Case 17 had been in contact with a case of Small Pox at Leicester, and developed the disease in this town. The usual precautionary measures were adopted and no extension followed.

Case 57 was removed from the Workhouse. It was that of a child, who, with its parents, had been tramping the country, and had probably come into contact with the disease in the course of their travels. No further cases were recognised as having an association with this one.

During the time that cases were being notified from contact with case 6, cases 37, 38, 52, and 53 were reported, in none of which instances could any contact with Small Pox be discovered, but the probability is that there was some association with the cases which existed at that time in the town.

Cases 89, 92 and 94 were infected by the mother of two of these patients. There is very little doubt that this woman suffered from an attack of Small Pox which was never recognised. She paid a visit to her father's home, which was situated in a neighbouring county, and was attacked with the initial symptoms of Small Pox whilst journeying thither in the train. She stayed at this house for several days, and the first I heard of the case was an intimation from the Medical Officer of Health of that district that the woman's father was suffering from Small Pox, and almost simultaneously with the receipt of the letter a case was reported to me from her house in Derby. I carefully examined her and discovered a few scars, which, in view of the history of the case and the characteristic initial illness, I regarded as the marks left from small pox pustules.

In cases 109, 110 and 111, infection was never traced.

Case 124 introduced the disease into the town from an infected area, near Ashbourne. He was a navvy and was attacked whilst residing at one of the common lodging houses. There was no extension,

The infection in case 142 was also not traced. He was found at a common lodging house. Cases 179 and 181 were infected by him.

Case 208 was that of a navvy who came into the town suffering from the disease, and was also found living in a common lodging house. Again there was no extension.

Cases 214, 247, 249, 273 and 301 were all cases removed from the Union Infirmary. Case 301 was engaged in the laundry.

The original infection in case 244 was never actually ascertained, though I have reason for believing that it is associated with cases 142 or 179. Cases 258, 259 and 260 were infected by this case.

Case 269 was another distinct importation without spread.

Having in view the circumstances attendant upon case No. 6, and the large number of distinct importations of the disease, the results which followed the methods adopted can only be regarded as satisfactory. I am sure the members of my staff, both at the office and the hospital, appreciated the monetary grants which the Sanitary Committee made to them in recognition of their extra work.

The preventive measures which were adopted were as follows:—

First enquiries and action taken in respect to "contacts."—

The cases, immediately they were reported, were visited by the district Inspector, or if the Medical Officer of Health visited the case, as almost invariably happened, the Inspector accompanied him so that no time might be lost. The Inspector's first duty whilst awaiting removal of the case, was to ascertain particulars of the outbreak, the probable source of infection, and the names of all persons who had been in contact with the patient. In the majority of cases, even before removal, the disinfecter arrived at the house and commenced the sealing of windows, fireplaces, and doors, for the subsequent disinfection. The list of contacts was returned to the office, and as soon as possible these were visited, and the advisability of vaccination or revaccination impressed upon them. The inmates of the house received similar advice, and in the majority of cases the operation was accepted. In almost all cases the vaccinations were performed on the same day the case was notified, either by the public vaccinator or a private practitioner, verification of the performance of the operation being sought later in the day by telephone. All "contacts,"

whether vaccinated or not, were visited at regular intervals of not more than three days, and enquiries were then made as to the state of the health of all the inmates of the house at which they lived. In some instances it was thought advisable to disinfect by steam the clothing of persons who, though not resident under the same roof as the patient, had frequently been in contact with the patient.

Additions to the Staff.—To avoid any arrears of work when the cases were most numerous, an additional horse and driver as well as an additional disinfecter were engaged, and this slightly augmented staff was found sufficient to deal with all the cases, no delay resulting in any case.

Action in respect to members of Infected Households.—Some of the cases occurred in the families of railway or post office officials. These were kept away from work for fourteen days after the last exposure to infection. After disinfection of house and clothing was completed, members of infected households were advised to take walks into the country and to refrain from using trains, cabs, or mixing amongst crowds of persons, also to abstain from visiting and from receiving visits from friends. In houses where absence from work, at the request of the Sanitary Authority, had caused financial distress, some compensation either in money or kind was given. Where it was not possible to obtain vaccination, the head of the household was carefully instructed in the initial symptoms of an attack of Small Pox, and recommended to at once call in a medical man should any member of the family fall ill. Where unvaccinated children lived in an infected house, the parent was requested to personally supervise the actions of the children, and to endeavour, as far as possible, to keep them from playing with other children until at least fourteen days had elapsed from the removal of the last case.

It is hardly necessary to say that the cases were removed as soon as possible from an infected house, almost always within a few hours of receiving the notification.

Disinfection was carried out under the supervision of the inspectors, both disinfecter and inspector wearing Holland caps and coats. The uniform and clothing worn by the staff engaged on this work were disinfected at intervals. The inspectors had all been re-vaccinated at some time or other. In the interval between the removal of the patient and the disinfection of the house, the inmates

were requested *not* to leave the house, and the inspectors had instructions to make what purchases were necessary. Disinfection took two days to complete. The rooms in half the house were sealed up and fumigation by sulphurous acid gas, generated by burning sulphur at the rate of not less than one pound per 1,000 cubic feet, was carried out, the time for exposure being from eight to nine hours. In one of these rooms the clothing of the occupants which was not then being worn was freely exposed to the gas. After one half of the house had been fumigated, the remaining portion was similarly treated, and the clothes the occupants were wearing during the first half of the disinfection were in turn disinfected. The rooms were always opened by a member of the staff. In addition, the Inspectors saw that all articles, both bed linen and clothing, etc., were placed into disinfectant fluid or plain water for immediate washing; the various articles of dress which could not be so treated were taken to the Hospital in a special van and disinfected by steam. In the majority of cases, beds and pillows were dealt with likewise, and any articles likely to retain infection, but which it did not appear probable could be well disinfected by fumigation, were destroyed by burning at the destructor and new ones purchased or some monetary consideration given to the owner. In cases where it appeared desirable, the walls were stripped, but in every instance all surfaces of furniture, pictures, vases, etc., were cleaned with a cloth damped in disinfectant fluid. In some instances, where facilities did not exist at home for bathing, the whole of the occupants of the infected houses were taken to the Hospital, each individual was passed through the discharge block, given a bath, and whilst bathing had his clothes disinfected.

During the present outbreak a modification of this plan has been adopted as follows:—

After removal of the case the disinfectors proceed to prepare the house for disinfection, and the occupants are requested not to leave the house for the remainder of that day. The inspector makes one or more visits and purchases whatever necessities may be required during the few hours quarantine. He arranges to take all the people up to the Hospital early next morning, where they are given a bath, and all their clothes are disinfected by steam; the house during this time is undergoing disinfection. In this way a considerable amount of time is saved, inasmuch as neither disinfectors nor in-

spectors are engaged for more than a part of one day at the house. This plan has worked quite smoothly, but neither this nor the former method is quite satisfactory, the former requiring too long a period for disinfection, and the latter inflicting some hardship upon the people, inasmuch as it takes eight hours to disinfect the house, and even then a few hours longer are necessary to render it fit to live in, and from the time that disinfection is completed to the time that the house is fit for re-occupation the people have nowhere to go. It is true they are free from infection, but no one cares to entertain a recent Small Pox contact, and where some members of the family are of tender age the hardship is increased. The way out of the difficulty is obvious; a central disinfection station, with baths and sitting rooms, should be provided, and, in a town the size of Derby, it is not too excessive a request that such an addition should be made to the means provided for dealing with outbreaks of infectious disease.

In respect to Common Lodging Houses.—When a case was notified from a Common Lodging House it was, of course, removed as soon as possible. The lodgers were informed and vaccination strongly advocated, a monetary grant being made to each person who consented to vaccination or revaccination. After the men had retired for the night their clothing was taken and spread out in one of the rooms, where it was as efficiently disinfected as gaseous disinfection could do it. Their clothes were returned to them early the following morning, and they were then allowed their liberty. Visits were made daily, or every other day, and enquiries made as to the health of the men, any suspicious case of illness being at once isolated. The whole of the lodging house was disinfected by means of sulphur, infected bedding and clothing burnt, and a thorough limewashing subsequently carried out.

Laundry.—The laundry where one patient worked was visited, and the circumstances under which linen was received, sorted, and distributed after finishing was ascertained, and certain suggestions were made for future improvement. A list of customers could not be obtained. The proprietor was told to obtain the consent of the hands for revaccination, but as only few were willing, it was suggested to him that for the next fourteen days he should arrange with a medical man to visit the place every morning and examine the staff, with the idea of an early recognition of suspicious symptoms. This was done though it was not found necessary to send anyone home.

The place was limewashed, and all baskets cleaned and disinfected. As this is the largest laundry in the infected area, a list of infected houses was supplied to him for private use only. No cases were traced to infection from this laundry.

School.—Two cases occurred in the class taught by one of the contacts. The diagnosis of small-pox in respect to the case with which she was in contact was made on January 5th, and she did not attend school after that date; her clothing was disinfected, and the class room and books were also disinfected. A list of scholars in this class was obtained and all were visited, vaccination being suggested where there had been default.

Notification of other Towns.—Where any of the cases were either directly or indirectly associated with some other town, the Medical Officer of Health was immediately notified, and likewise in the case of any known contacts who had left the town after exposure to infection.

Other measures.—School notification of infected houses was carefully carried out. Sanitary conditions or defects received every attention. Fluid and powder disinfectants were left at infected houses. Every assistance and advice was given to the heads of the households by both inspectors and Medical Officer. Articles, such as tailors' paper patterns, etc., which could not be destroyed received a further disinfection in a special chamber at Ford Street Yard.

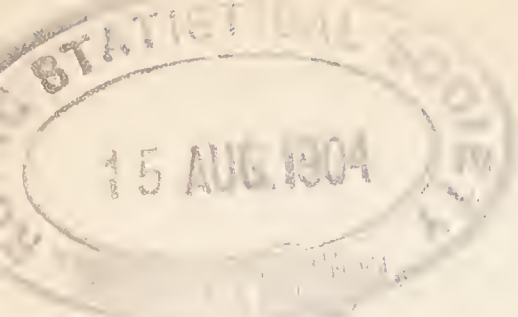
TABLE VIII.—Small Pox cases in Derby during 1903.

Num-ber.	Age.	Sex.	Date Admitted to Hospital.	Date Discharged or Died.	Time in Hospital.	Result.	Source of Infection.	Vaccination.	Remarks.
4	30	Female	4 Jan.	24 Jan.	20 days	Cured	?	Infancy, and revac- cinated 15 years ago.	Very mild attack. Rash aborted early.
6	6 m'nths.	Male	...	...	...	Died	?	Unvaccinated.	Died before removal to Hospital. Case not recognised as Variola until late.
17	19	"	13 Jan.	30 Jan.	17 "	Cured	Leicester contact.	Infancy.	Mild abortive attack.
23	29	Female	14 Jan.	3 Feb.	20 "	"	From No. 6.	Vaccinated in infancy	
24	22	"	14 Jan.	21 Feb.	38 "	"	" "	"	Nursed case 6. Lived in same house, and revaccinated many days after contact.
28	10	Male	16 Jan.	11 Mar.	54 "	"	Sister nursed case 6.	Unvaccinated.	
32	51	Female	17 Jan.	14 Feb.	28 "	"	Direct contact case 6.	Vaccinated in infancy.	
37	15 m'nths	"	21 Jan.	14 Feb.	24 "	"	?	?	No marks of Vaccination. Operation said to have been performed but had failed.
38	6	Male	20 Jan.	14 Mar.	53 "	"	?	Unvaccinated.	Probably School infection, indirectly with case 6.
39	6	"	20 Jan,	26 Feb.	37 "	"	Sister of this patient nursed case 6.	"	
40	45	"	21 Jan.	11 Feb.	21 "	"	Case 6.	Vaccinated in infancy.	
42	8	Female	21 Jan.	14 Feb.	24 "	"	Case 6.	Unvaccinated.	This patient attended the class taught by a relative of case 6, who had nursed that child during its illness.
43	9	Male	22 Jan.	20 Mar.	57 "	"	Case 6.	"	

Num-ber.	Age.	Sex.	Date Admitted to Hospital.	Date Discharged or Died.	Time in Hospital.	Result.	Source of Infection.	Vaccination.	Remarks.
51	10 m'ths.	Female	23 Jan.	14 Feb.	22 days	Cured	Probably case 6.	Unvaccinated.	No evidence of direct contact was ascertained, but this patient and No. 6 lived in adjoining houses.
52	44	Male	23 Jan.	17 Mar.	53 "	"	?	Vaccinated.	Patient engaged as road sweeper in District where case 6 was reported from.
53	34	Female	23 Jan.	21 Feb.	29 "	"	?	Vaccinated in infancy.	Laundry hand.
54	9	Male	23 Jan.	20 Mar.	56 "	"	Case 6.	Unvaccinated.	See remarks to case 43, which also refer to this case.
55	40	Female	24 Jan.	3 Mar.	38 "	"	Indirectly case 6.	Vaccinated in infancy.	Relative of case 6, fitted this patient with some article of dress.
57	8	Male	24 Jan.	26 Feb.	33 "	"	Outside Derbyshire.	"	Casual, removed from Workhouse.
73	40	Female	3 Feb.	25 Feb.	22 "	"	From case 73a.	Vaccinated in infancy.	
74	7	Female	3 Feb.	11 Feb.	8 "	"	From case 73a.	"	Very mild case.
75	7	Male	3 Feb.	31 Mar.	56 "	"	Case 54.	Unvaccinated.	Was vaccinated four days after removal of case 54.
77	7	Female	5 Feb.	31 Mar.	54 "	"	Case 43.	"	
78	18	Female	6 Feb.	14 Mar.	36 "	"	" "	Vaccinated in infancy.	
89	7	Female	11 Feb.	28 Aprl.	76 "	"	} Indirectly case 6.	Unvaccinated.	} Mother of two of these patients had been in contact with the Nurse of case 6, and there was reason to believe she suffered from a mild unrecognised attack of Small Pox.
92	22	Female	12 Feb.	3 Mar.	19 "	"		Vaccinated in infancy.	
104	9	Male	17 Feb.	28 Aprl.	70 "	"		Unvaccinated.	

Num-ber.	Age.	Sex.	Date Admitted to Hospital.	Date Discharged or Died.	Time in Hospital.	Result.	Source of Infection.	Vaccination.	Remarks.
109	8	Male	19 Feb.	8 Aprl.	48 days	Cured	?	Unvaccinated.	} The source of infection in these three cases was never traced.
110	14	Male	19 Feb.	8 Aprl.	48 "	"	?	"	
111	7	Female	19 Feb.	8 Aprl.	48 "	"	?	"	
124	48	Male	25 Feb.	11 Aprl.	45 "	"	Probably Ashbourne.	Vaccinated in infancy.	Navy engaged on sewage work.
142	55	Male	7 Mar.	1 May	55 "	"	?	"	
179	47	Male	21 Mar.	16 May	56 "	"	Case 142	"	Infection not traced.
181	29	Male	23 Mar.	11 Aprl	19 "	"	" "	"	
208	30	Male	8 Aprl.	16 May	38 "	"	Outside Derbyshire.	"	Contact in public-house.
214	29	Male	15 Aprl.	21 May	36 "	"	?	"	
244	53	Male	15 May	16 June	32 "	"	Probably from 142, 179, or 181.	"	Navy who came to work on sewage works.
247	43	Male	18 May	27 June	40 "	"	?	Vaccinated in infancy. Revaccinated 10 years' ago.	
249	34	Male	19 May	27 June	39 "	"	?	Vaccinated in infancy.	Removed from Workhouse.
258	16	Female	28 May	11 July	44 "	"	Case 244.	Vaccinated in infancy.	
259	50	Female	29 May	24 June	26 "	"	" "	"	} These three cases are members of the same family as case 244, and all refused vaccination, though offered at the time 244 was removed.
260	18	Male	29 May	16 June	18 "	"	" "	"	
269	12	Female	5 June	4 July	29 "	"	Newcastle, or in train.	"	

Num- ber.	Age.	Sex.	Date Admitted to Hospital.	Date Discharged or Die.	Time in Hospital.	Result.	Source of Infection.	Vaccination.	Remarks.
273	61	Male	5 June	9 June	4 days	Died	See cases 24, 7, 249, and 214.	Vaccinated in infancy.	Died from intercurrent disease. Re- moved from Union Infirmary
301	42	Female	9 July	1 Aug.	23 "	Cured	See case 273.	Infancy.	Engaged in laundry at the Workhouse.
224	28	Male	25 Aprl.	23 May	28 "	"	...	...	These cases were brought from outside to the Borough Hospital for treat- ment.
225	42	Male	27 Aprl.	9 June	43 "	"	...	...
226	3	Male	30 Aprl.	16 May	16 "	"	...	...



Vaccination.—As might be expected, the prevalence of Small Pox in the town resulted in a considerable increase in the number of vaccinations. Forty-eight per cent. of available children were vaccinated. This is a higher percentage than in any year since 1891.

I am indebted to Mr. Payne, Vaccination Officer, for the information from which the following table has been prepared:—

TABLE IX.—*Showing the percentage of successful Vaccinations in the Borough of Derby for the 11 years 1873-83, and for each year from 1884-1903.*

YEAR	Births.	Died unvaccinated.	Insusceptible and postponed	Total available Children.	Successfully Vaccinated.	Percentage of Children Vaccinated.
11 Years						
1873-83	31,011	3,767	180	27,244	24,723	90.7
1884	2,882	356	7	2,526	1,673	66.
1885	2,904	337	44	2,567	2,151	83.
1886	2,896	328	39	2,568	2,363	92.
1887	2,673	281	30	2,392	2,209	92.
1888	2,720	306	47	2,414	2,186	90.
1889	2,707	314	12	2,393	2,032	84.
1890	2,597	289	4	2,308	1,893	82.
1891	2,914	368	5	2,546	1,681	66.
1892	3,015	428	5	2,587	1,134	43.
1893	3,142	420	4	2,722	737	27.
1894	2,934	345	2	2,589	453	17.
1895	2,941	454	4	2,487	283	11.
1896	2,876	406	3	2,470	210	8.
1897	2,826	430	1	2,396	145	6.
1898	2,869	389	0	2,480	330	13.
1899	3,000	475	292	2,525	784	31.
1900	2,935	488	78	2,447	432	18.
*1901	3,046	449	158	2,597	796	31.
*1902	3,277	388	15	2,874	1,137	40.
*1903	3,244	377	159	2,708	1,307	48.

*Added area included.

Mr. W. H. Whiston informs me that the number of exemption certificates granted under the Vaccination Act during the year 1903 to persons resident within the Borough was 257, as compared with 258 in 1902. There were 11 certificates granted to persons residing outside the Borough of Derby.

Scarlet Fever.—

Mortality from Scarlet Fever during the past five years.

Year.	Ten Years' Average.	1899	1900	1901	1902	1903.		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1,000	0.15	0.25	0.22	0.17	0.07	0.07	0.12	0.14

The number of cases of Scarlet Fever notified during the year was 185; this is the lowest number for 16 years. In 1899 the

disease was prevalent in an epidemic form, and this continued throughout 1900 and 1901, with a marked fall in 1902. In that year there were 332 notifications which further declined to almost half that number, viz., 185 in 1903. Owing to using the Hospital during the first three quarters of the year for Small Pox, only 62 cases of Scarlet Fever were isolated, viz., 4 in the first quarter, 13 in the second, 10 in the third, and 35 in the fourth quarter. There were eight deaths, representing a case mortality of 4.4 per cent., and a general mortality of .07 per 1,000. This is about half the previous 10 years' average; it is also less than the rate recorded in England and Wales, and in the 76 great towns.

The age incidence of persons attacked was as follows:—

Ages.	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20—30	30 upwds	Total.
Attacked	2	7	13	20	17	23	16	17	9	12	8	4	6	...	2	3	...	3	3	3	14	3	185
Died	...	...	...	2	1	...	3	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	8

Between the ages 2 and 10 there were 135 cases, with 7 deaths. The mild type of disease which has been noticeable during the past few years, on the whole, continued.

Diphtheria.—

Mortality from Diphtheria during the past five years.

Years.	Ten Years' Average	1899	1900	1901	1902	1903		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1000	0.09	0.08	0.09	0.19	0.10	0.03	0.18	0.20

Eighty-three cases of Diphtheria were notified, as compared with 63 in the previous year. This number is considerably above the average, the increase being due to some extent to the cases reported as the result of a small outbreak at the Railway Servants' Orphanage. 26 cases were notified from that Institution between March 10th and May 20th. A large number of children were found to be suffering from sore throats, which in a few instances showed a small amount of membrane with a slight rise of temperature. None of the children attacked were seriously ill, but swabs taken from several throats and submitted to bacteriological examination confirmed the diagnosis. A careful examination of all the children resulted in several of them being isolated owing to some abnormal condition of the pharynx and tonsils, this abnormality in a few instance being proved to be

diphtheria. There were no deaths, and the mildness of the attacks considerably increased the difficulties of dealing with the outbreak. Among these 83 cases of Diphtheria, there were only three deaths, which is equal to a death-rate of .03 per 1,000. Although Derby has long enjoyed a low death-rate from this disease, the number of deaths has never been so low before. It compares most favourably with the past 10 years' average, and with the death-rate recorded in England and Wales, and also in the 76 great towns. 13 swabs were sent to Professor Delépine for bacteriological examination. In 6 instances no bacilli were present, and in one instance the report read: "a few suspicious bacilli were found."

The age incidence of the attacks is given in the subjoined table, and from it will be gathered the fact that the majority of cases were between the ages of 3 and 10. The three deaths were of children under 11 years of age.

Ages ..	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15—20	20—25	25 upwds	Total.
Notifications	...	0	1	5	4	4	5	8	6	8	9	5	5	5	1	3	3	11	83
Deaths	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3

Measles.—

Mortality from Measles during the past five years.

Years.	Ten Years' Average	1899	1900	1901	1902	1903.		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1000	0.34	0.24	0.93	0.00	0.33	0.04	0.27	0.36

The mortality from Measles has been again extremely satisfactory, only five deaths having been registered, which is equivalent to a death-rate of 0.04 per 1,000. This is considerably below the 10 years' average, and also the rate for England and Wales. The death-rate from Measles however is one which is characterised by extreme fluctuations. This is clearly seen in the short period set out in the above table, the death-rate being in direct ratio to the epidemic prevalence of the disease.

I must again express my indebtedness to the majority of the school masters and mistresses for the notifications which have been forwarded in respect to measles. These notifications enable one to realise that Measles is prevalent in the town at a much earlier period than can be ascertained from the weekly mortality returns,

and early action, which is so important in controlling outbreaks of this disease, can be taken to check its spread. When the number of cases is not large all are visited, but when it is impossible to make this personal visitation, a printed circular of precautions which should be adopted in infected households is sent by post to the houses where the disease is known to exist.

It seemed probable at one time that an outbreak of Measles would have to be dealt with, and the following letter was sent to the head of every department in the town:—

PUBLIC HEALTH DEPARTMENT,
FORD STREET, DERBY,
OCTOBER 28th, 1903.

NOTICE TO SCHOOL TEACHERS.

MEASLES.

IMPORTANT.

I regret to inform you that a considerable number of cases of Measles have recently occurred in the Borough, particularly in the Osmaston and Alvaston districts. There is reason to apprehend another serious outbreak such as occurred in 1900. These epidemics of Measles greatly interfere with the work of elementary schools, and during the year referred to, the number of deaths from this cause was almost double that of the combined mortality from Small-pox, Scarlet Fever, Diphtheria, and Enteric Fever.

I therefore earnestly invite you to be kind enough to co-operate with this Department in seeking to limit the extension of the disease by instructing your teachers to at once notify to me the occurrence of any suspicious illness amongst their scholars, with address of the sufferers. Special attention should be directed to the members of the infant classes, they being more liable to attack than older children.

The ordinary Symptoms of Infection are those of a Feverish Cold, with running from the Eyes and Nose, Sneezing and Cough, and, as Measles is highly infectious from the first, any child presenting such signs, together with any other member of the family, should be excluded from your school; this remark applies with equal force to Sunday schools, congregations, and other public assemblies.

Much of the heavy mortality from Measles results from exposure and neglect due to widespread ignorance of the really grave nature of the disease. In the event of any notification coming from your school, a supply of handbills giving instructions will be forwarded to you, and I should be obliged if you would kindly assist in the diffusion of this information by handing to such of your pupils as you think desirable a copy of the handbill for transmission to parents or guardians.

Although at the present time the disease, except in a few instances, has not

affected the children in the old borough to any considerable extent, the fact that it is three years since an outbreak did occur, makes it probable that unless the strictest vigilance is maintained, the present year will witness a considerable epidemic.

MEDICAL OFFICER OF HEALTH.

Whooping Cough.—

Mortality from Whooping Cough during the past five years.

Years.	Ten years' average.	1899	1900	1901	1902	1903		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1,000	0.30	0.87	0.50	0.28	0.25	0.27	0.27	0.33

There were 32 deaths attributed to Whooping Cough, as compared with 29 in the previous year. The rate is below the 10 years' average, and is likewise less than that recorded in the whole of England and Wales. The whole of the deaths were among children under 5 years of age. The disease was chiefly prevalent in Abbey, Arboretum, Friargate, Kingsmead and Markeaton Wards. It is not a notifiable disease, and the first information is usually derived from the school returns.

Diarrhœa.—

Mortality from Diarrhœa during the past five years.

Years.	Ten Years' Average	1899	1900	1901	1902	1903.		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1,000	0.82	0.92	0.48	0.99	0.39	0.38	0.50	0.71

The deaths from Diarrhœa numbered 51, as compared with 45 last year. Forty-one of these deaths were of children under one year of age. The mortality is equal to a rate of .38 per 1,000, which is less than half the ten years' average, and compares favourably with the mortality recorded in England and Wales as a whole. In addition to these deaths there were 14 deaths from enteritis, 8 of which were of children in the first year of life. The diminished prevalence of the disease cannot be attributed in more than small part, if at all, to improved sanitary conditions. It is probable that, as last year, the meteorological conditions were not favourable to extension of this disease. I have frequently referred to the fact that the summer diarrhœa which causes a large proportion of these deaths is an acute specific disease capable of extension, probably by means of infected milk. The preventive measures which are

adopted consist in the visitation of all houses by Miss Fitzgerald, as soon as practicable, after a birth has been registered. Instructions in the proper way of preparing food are given, and observation is made as to the general sanitary conditions existing both inside and outside the house. An important addition has been made to this work during the year, inasmuch as an arrangement has been entered into between the Sanitary Committee and the Royal Derbyshire Nursing Institute whereby the services of two of their nurses are granted to the Health Department for afternoon work. Among their other duties they are expected to make repeated visits to houses where the woman Inspector is of opinion that continued assistance should be given to a mother who is bringing up a child by hand. I believe the work of the nurses is appreciated and will result beneficially. Other preventive measures consist in the regular flushing of courts during the summer months. A note as to the amount of water used for this purpose is contained in the Borough Surveyor's report which is appended. The substitution of water closets for existing privies and pails is being pushed with as much energy as possible, as there can be very little doubt that the existence of these objectionable structures operates most disastrously on the health of the young.

Enteric Fever. —

Mortality from "Fever" during the past five years.

Years.	Ten years' average.	1899	1900	1901	1902	1903.		
						Derby.	England and Wales.	76 Great Towns.
Rate per 1000	0.21	0.15	0.21	0.20	0.12	0.06	0.10	0.12

There were 62 cases of Enteric Fever notified during the year, two of which were strangers who were brought to the Royal Infirmary from districts outside the Borough for treatment. This compares with 84 cases in 1902, of which 2 were strangers. There were 7 deaths reported, which is equivalent to a case mortality of 11.3 per cent, and a general mortality of 0.06 per 1,000 of the population. For many years I have drawn attention to the fact that although the total death-rate has compared favourably with that recorded in the whole of England and Wales, the rate from Enteric Fever—which may to some extent be regarded as the index of the sanitary state of a district—has nearly always, if not always, been higher. It is therefore satisfactory to find that the year 1903 was an exception, the enteric fever rate was less than one-third of the previous

years' average, and was lower than the all-England rate, and than that registered in the 76 great towns.

The age incidence of the persons attacked and the fatal cases resulting therefrom are shown in the following tabulation :—

Years of Age.

	under 1	1 and under 5	5 and under 10	10 and under 15	15 and under 20	20 and under 25	25 and under 30	30 and under 35	35 and under 40	40 and under 45	45 and under 50	50 and upwards	Total.
Attacked	0	2	4	5	11	13	7	5	5	4	3	3	62
Died	0	0	0	0	1	2	2	0	1	0	0	2	8

From this table it will be seen that the greatest number of attacks fell on persons between the ages of 15 and 25, and that the greatest fatality was experienced at ages over 50 years. There were only three persons attacked at this time of life, but the attack proved fatal in two of the cases. As is generally recorded, a large number of the cases were reported from houses where gross sanitary defects were found to exist. The chief faults were the offensive privies and pails which happily are decreasing in number each year, and in those houses where a water-closet had been provided, defective drains were the chief source of nuisance. At the present time the drains to new houses are laid with cemented joints, and before being covered they are submitted to the water test, this, however, has unfortunately not been the case for any considerable number of years, and a great portion of the Inspector's time is taken up in supervising drainage work on property which can in no sense be regarded as old property. There should be no hesitation about refusing to pass as insufficient, any drainage work other than that executed in the best possible manner, and before being covered in every length should be submitted to the most careful examination. Bad drainage work frequently results in disastrous consequences to people within the sphere of its influence, long before the idea that such defects exist is suggested.

Every year during the autumn months, cases are discovered which can only have been infected outside the town. The patients in some instances have visited country districts where wells have provided the water for domestic purposes. In other cases, visits to the seaside and the ingestion of shell-fish are often accounted causes of Typhoid, but during 1903 only one of these latter cases was reported,

Another series of cases which annually swell the total are those due to direct infection. During 1903, ten such cases came under my observation, 4 of which were professional nurses, whilst the other cases had been into more or less direct contact with a person suffering from the disease.

A large number of attacks are placed under the heading of "other cases." As a rule no satisfactory exposure to infection can be assigned to these cases. It is interesting to note that in six instances coming under this heading subsequent observation resulted in a communication being received which stated that the diagnosis was perhaps incorrect. Enteric Fever is a disease which varies so enormously in its clinical aspects that it is distinctly advisable that all doubtful cases should be notified as Enteric, so that early preventive measures may be adopted, rather than the notifications should be delayed until a positive diagnosis can be made. Such action as the latter might result in a doubtful case never being notified, or only by the occurrence of subsequent cases which proper supervision might have prevented, would the clue be given to the real nature of the first attack.

The various cases are classified in the following tabulation, the headings being those used in previous years.

TABLE IX.—*An analysis of the cases of Enteric Fever notified during the year 1903.*

A.—*Cases in which sanitary defects were prominent.*

Pro- gressive No.	Age.	Sex.	Sanitary Conveniences.				Nuisances.	Remarks.
			W.C.	Pail.	Privy	Privy Cess- pool.		
11	19	M	...	...	I	...	Privy about 10 feet from house; also complaint of smells from sewers.	
20	19	M	...	...	I	...	.. .. .	Infected water probable cause.
46	42	M	...	...	I	...	Foul privy.	Four cases in vicinity.
93	13	M	...	...	I	...	Foul privy and iron lip traps.	
108	40	M	I	...	...	...	An accumulation of gross defects discovered.	
138	29	M	I	...	...	...	Foul soft-water cisterns.	
140	22	M	...	...	I	...	Unsanitary privy and defective drains.	
170	21	M	I	...	...	...	Drains recently blocked.	Burmantoff's closets.
171	13	M	...	I	...	..	Defective drain traps.	
207	30	M	...	I	...	...	Defective traps inside work-room.	Offensive gullies were complained of.
236	51	M	I	...	...	...	Patient unstopped blocked drains a few weeks before.	
240	5	M	...	I	...	...	Offensive tub closets.	
318	36	F	...	I	...	...	Offensive tub closet.	Dairy.
331	21	M	...	...	...	I	Offensive privy cesspool.	
361	19	M	I	...	...	...	Defective drain.	
375	19	M	...	...	I	...	Offensive privy and defective drainage.	
405	42	M	...	...	I	...	Defective privy and drains.	Patient is an ashman for Corporation.
435	30	M	I	...	...	...	Drains recently choked.	Dairy.

B.—*Cases in which visits to other towns were made prior to onset.*

319	21	F	I	...	...	...	.. .. .	Possibly infected out of Derby.
325	21	F	I	...	...	...	.. .. .	Probably infected whilst on a visit near Derby.
342	5	F	I	...	...	...	.. .. .	Infected in Leicestershire.
349	15	F	I	...	...	...	.. .. .	Contracted disease before coming to Derby.
350	12	M	...	I	..	...	.. .. .	Contracted disease before coming to Derby.
365	22	F	...	...	I	...	.. .. .	Contracted disease before coming to Derby.

Pro- gressive No.	Age.	Sex.	Sanitary Conveniences.				Nuisances.	Remarks.
			W.C.	Pail.	Privy	Privy Cess- pool.		
372	39	M	I	...	...	...	.. ..	Patient only sleeps in Derby. Constantly travelling.
396	35	M	I	...	...	...	.. ..	Probably contracted disease when on holidays.
419	23	M	I	...	...	...	.. ..	Possibly infected out of Derby.

C.—*Cases in which direct Infection was apparently the cause.*

5	27	F	I	...	...	...	None.	Engaged nursing enteric fever.
48	15	F	...	...	I	...	.. ..	Father and brother ill.
148	19	M	I	...	...	...	None.	From sister.
245	21	F	I	...	...	...	.. ..	Nursed enteric patient.
288	21	F	I	...	...	...	.. ..	Nursed enteric patient.
293	28	F	I	...	...	...	.. ..	Nursed enteric patient.

D.—*Cases in which direct Infection was possible.*

59	10	F	...	...	I	...	.. ..	Second case in this house. Pre- vious one in 1902.
173	27	M	I	..	...	...	.. ..	General cleaner at house from where an enteric case was removed.
241	20	F	...	I	...	...	.. ..	Sister-in-law of case 173.
323	24	M	I	...	...	...	.. ..	Worked in house where patient ultimately died of enteric.

E.—*Other Cases.*

I	27	F	I	...	...	...	None.	Had been nursing brother said to have had influenza.
9	59	F	I	...	...	...	None.	No ascertainable cause.
16	8	F	I	...	...	...	None.	No ascertainable cause.
164	12	F	I	...	...	...	Complained of street gullies.	
176	59	M	...	...	I	...	Note privy.	
230	46	M	...	...	I	...	Note Privy.	Caught chill.
251	17	M	...	...	I	...	Note privy.	
267	34	M	...	...	I	...	Note privy.	
292	18	M	I	...	...	...	Engaged on drainage work.	
294	4	F	...	I	...	...	.. ..	Doubtful case.
297	27	M	I	...	...	...	.. ..	Doubtful case.
302	48	M	...	...	I	...	.. ..	Doubtful case.
303	47	F	...	I	...	...	Note pail.	Complained of street gullies. Doubtful case.

Pro- gressive No.	Age.	Sex.	Sanitary Conveniences.				Nuisances.	Remarks.
			W.C.	Pail.	Privy	Privy Cess- pool.		
314	37	F	I	...	...	...	.. .. .	Doubtful case.
320	2 $\frac{1}{2}$	M	...	...	I	...	Note privy.	
327	22	M	I	...	...	...	.. .. .	Disease manifested itself whilst patient was an inmate of the infirmary suffering from appendicitis.
344	15	F	I	...	...	...	No ascertainable cause.	
346	36	F	...	I	...	...	Note pail closet.	No ascertainable infection.
360	18	M	...	I	...	...	Note pail closet.	No ascertainable infection.
376	31	F	I	...	...	...	.. .. .	Doubtful case.
428	42	M	I	...	...	...	Some overcrowding of house.	Burmantoff closet.
459	22	F	I	...	...	...	.. .. .	No ascertainable cause.
468	35	F	I	...	...	...	.. .. .	No ascertainable cause.

Tubercular Diseases.—The incidence and distribution of diseases which are due to infection of the system by the tubercle bacillus are subjects to which considerable attention has been directed in recent years. Frequent reference has been made to the decreasing prevalence of this class of diseases, more particularly as relating to tuberculosis of the lungs or phthisis. The lungs appear to be the organs which are most frequently attacked by the bacillus in adult life, but during earlier years tuberculosis does not show this tendency to limited distribution, for the abdominal glands, cerebral membranes, and peritoneum, are frequent seats of infection, causing deaths which are registered under the headings *tabes mesenterica*, *tubercular meningitis*, and *tubercular peritonitis*, which latter is classified among “other tubercular diseases.” That they are an important cause of mortality can be shown from the fact that during the year 1903 they caused 62 deaths, as compared with 104 from phthisis.

Although the diminution in the rate of mortality from phthisis has been an almost yearly progressive one, it is not possible to say quite the same of this other class of tubercular diseases.

Tabes mesenterica during the last 10 years has undoubtedly decreased, the yearly average for the period being 19 deaths, last year only 11 were reported, and 14 in each of the two preceding years. *Tubercular meningitis* is distinctly irregular, the average for the ten years being 10 deaths, but last year 23 were reported. *Scrofula* and other tubercular diseases is again irregular, with perhaps a tendency

to increase. Last year there were 31 cases reported as against an average of 19.7. These totals are shown in tabular form in the accompanying table which is extracted from table V., page 17.

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	Average.	1903
Tabes Mesenterica ...	25	19	31	23	21	12	15	16	14	14	19.0	11
Tubercular Meningitis	11	8	8	10	15	14	13	8	6	9	10.2	23
Phthisis ...	132	103	105	137	99	133	119	116	99	103	114.0	104
Scrofula and other Tubercular Diseases ...	17	20	19	16	15	22	18	17	22	31	19.7	31

The total number of persons dying from Phthisis who were residents in the Borough was 102, which represents a death-rate of 0.87 per 1,000. This is the lowest rate which has been recorded from this disease. There has been a lower number of deaths registered, viz., in 1897 and 1901, when only 99 were reported in each of these two years, but allowing for the increase in population the death-rate per 1,000 was lower in 1903 than in either of these years.

The scheme of voluntary notification which was inaugurated in 1902 has worked satisfactorily during the past year, and the ready response which has been made by the medical men practising in the town justifies a continuance of the scheme. During the second half of 1902, 57 cases were reported, and during the year under review, 119. These cases are notified by private practitioners, by the resident officers of the various hospitals in the town, and by the poor-law medical officers. The total number received from each was as follows:—

YEAR.	Private Practitioners.	Institutions.	Poor Law Cases.	Total.
July 1st to Dec. 31st, 1902 ...	35	17	5	57
1903 ...	42	71	6	119

The ward distribution of these cases was as follows:—

Abbey ...	6	Derwent ...	5	Pear Tree ...	4
Arboretum ...	5	Friar Gate ...	3	Rowditch ...	3
Babington ...	8	King's Mead ...	13	Strangers ...	14
Becket ...	6	Litchurch ...	13		
Bridge ...	3	Markeaton ...	8	Total ...	119
Castle ...	9	Normanton ...	3		
Dale ...	7	Osmaston ...	9		

In Litchurch and King's Mead Wards the largest number of cases was reported, viz., 13 in each. This is what might have been expected as regards the latter ward, but it is rather surprising to find Litchurch Ward, which has a good record in respect to the annual death-rate, heading the list in the case of such a disease as Phthisis. It is hardly probable that the position which would be assigned to each ward if all cases could be discovered would be as above, for reference to table IV, page 16, shows that although only 6 cases were reported from Abbey Ward, there were 10 deaths registered by the district Registrar; in Castle Ward there were 10 deaths, but only 9 reported; whilst in Litchurch Ward there were 6 deaths registered as compared with 13 reported. The age distribution of these cases shows that as has frequently been stated to be the case, the chief incidence of Phthisis is upon persons who are in the prime of life. At this period parental responsibilities are at their maximum, as also is a person's value as a member of the state; and by the death of the head of the household the family is frequently left unprovided for with a prospect of many years fight against poverty, and the inevitable result that the children thus impoverished grow up with weakened constitutions and become an easy prey to the same disease which caused the death of the parent. The disease is thus continued in the family, and this series of circumstances gives rise to the mistaken impression that it is hereditary; a most mistaken impression, as hereditary transmission has been proved to be an occurrence of extreme rarity. On the contrary the disease is almost invariably acquired after birth.

Age incidence of persons attacked with Phthisis.

	All Ages.	0—15	15—25	25—45	45—65	65 upwards
Males ...	71	8	10	36	17	0
Females	48	2	16	24	6	0
Total ...	119	10	26	60	23	0

Provision for the bacteriological diagnosis of Phthisis has been made by arrangement with Professor Delèpine of the Owens College, Manchester. The medical men have not availed themselves of this

opportunity to any considerable extent, inasmuch as only 10 specimens were forwarded for examination. In 6 of these instances no tubercle bacilli were found, hence it is probable that advantage of the offer is only made use of in doubtful cases. In addition it must be remembered that by far the greatest proportion of notifications was received from the medical staff of the Royal Infirmary. That Institution is fully equipped for bacteriological examinations such as the one in question, and all investigations of this character are conducted in their own laboratories by the resident staff.

Enquiries into the occupation of the persons notified elicited the information that 11 persons were engaged in the various textile trades, but no particular branch showed an excessive incidence; of these, three were lace-hands, two elastic bandage makers, and the remainder worked at various places. Eleven labourers were notified as suffering from the disease, of which 4 were bricklayers' labourers. Seven patients were workers in metal, 4 in stone, and 4 in wood, whilst only 5 clerks were attacked with the disease, and 7 were children at school ages. Nineteen persons whose duties were of a domestic character were attacked; they were principally married women. The following tabulation gives detailed information in respect to the occupations followed by the patients:—

<i>Textile Workers.</i>				<i>Workers in Metal.</i>			
Lace Hands...	...	...	3	Iron Moulder	...	...	1
Stocking maker	...	...	1	Brass Worker	...	...	1
Knitter	...	...	1	Fitters	...	...	2
Spinner	...	...	1	Boiler Maker	...	...	1
Tape Weaver	...	...	1	Moulder	...	...	1
Elastic Bandage Maker	...	...	2	Blacksmith	...	...	1
Net Mender...	...	...	1				
Stocking Maker	...	...	1	Total	...	...	7
			<hr/>				<hr/>
Total	...	...	11				
			<hr/>				
<i>Workers in Wood.</i>				<i>Workers in Stone.</i>			
Wagon Maker	...	...	1	Stone Masons	...	...	4
Joiners	...	...	2				
Pattern Maker	...	...	1	Total	...	...	4
			<hr/>				<hr/>
Total	...	...	4				
			<hr/>				

<i>Labourers.</i>				Washerwoman	...	...	1
Bricklayer's Labourers	...	4					<u>19</u>
Fitter's Labourer	...	1					
Boiler Makers	...	1					
Corporation ...	...	1					
Loco.' Dept.	...	1					
Foundry	...	1					
General Labourer	...	1					
M.R. Carriage Works	...	1					
Total	...	11					
<i>Unclassified Railway Workers.</i>				<i>School Children.</i>			
Pointsman	...	1		Total	...	7	<u>7</u>
Ticket Collector	...	1					
Total	...	2					
<i>Clerks.</i>				<i>Others.</i>			
				Publican	...	1	
				Bootmaker	...	1	
				Printer	...	1	
				Baker	...	1	
				Boot Clicker	...	1	
				Tailor	...	1	
				Out-door Porter	...	1	
				Brewer	...	1	
				Organ Grinder	...	1	
				Painter	...	1	
				Discharged Soldier	...	1	
				Postman	...	1	
							<u>12</u>
<i>Domestic Duties.</i>							
Housewives	...	18					

An attempt was made to obtain the source of infection of persons reported as suffering from Phthisis. It was found very difficult to elicit information which would enable one to arrive at an opinion with any degree of certainty. The cases apparently lent themselves to the following classification:—First, cases which were notified from houses where a previous case of consumption had existed at a sufficiently recent date to justify the assumption of direct infection. In only eight instances was the evidence sufficiently reliable to enable me to place the case under this heading.

The second series of cases was characterised by a marked family history of consumption. In all these instances there had been a death from consumption in the family, but the death had taken place at a period so remote as to exclude the probability of direct infection and, in the majority of cases, there had been numerous changes of residence. Infection in these cases could only be associated with the earlier cases on the assumption that infection may take place

and be followed by a long period of latency, before the characteristic symptoms of the disease are manifested.

A third series of cases is extremely interesting, inasmuch as there is a suggestion that frequent visits made by a healthy person to houses where consumption exists, may result in the visitor being attacked by the disease. In four cases this apparently was the source of infection.

In group four there are three cases referred to in which a healthy man is assumed to have been infected by a workmate. Two of these patients were stonemasons, among which class of men the tendency to the disease is generally recognised, so that the circumstances may not stand in the relationship of cause and effect. The other case was that of a clerk who might possibly have been infected by another clerk who worked in the same office, and who suffered from phthisis.

There were no cases of what might be termed secondary house infection. The address of every person dying from consumption for the last 7 years has been recorded, and in no instance was a case of consumption reported from any one of these houses.

The last series of cases are those in which a definite illness was stated by the patient or the patient's friends to have been the starting point of the consumption. Of these cases 11 were attributed to influenza, 6 to pneumonia, 4 to pleurisy, 3 to pleurisy and pneumonia, and 3 to other illnesses.

There still remains a large number of cases in which no suggestion as to the cause or origin of infection can be made. In many of these cases the habits of life were such as to engender a marked predisposition to the disease, which may have been the most important factor in bringing about the attack.

SERIES I.—*Probably direct Infection.*

Case 2.—This patient has had a chronic catarrh for 11 years. The patient's brother and brother died of Phthisis when they were same age as this patient.

Case 8.—Mother and two sisters died of consumption, and two other sisters are ill, one with a chronic cough and one delicate and thought to be consumptive.

Case 17.—This patient's brother died of Phthisis 11 month's ago, and the present patient for some considerable time during his brother's illness occupied the same bed with him. Another brother died 8 years ago, and the father several years previously, the death of both being attributed to consumption.

Case 18.—The father of this patient and likewise two brothers have died from consumption. Another brother is suffering at the present time.

Case 34.—The wife of this patient died of consumption 3 years ago in the same house as he is at present living in.

Case 64.—This patient's wife died two years ago. A fellow workman of this patient also suffered from consumption.

Case 68.—This patient's father is at the present time suffering from Phthisis.

Case 122.—Patient, aged 25, has had two sisters and one brother die of Phthisis during the last few years.

SERIES 2.—Cases characterised by marked family history of Phthisis, but no recent contact with such cases.

Case 1.—Could obtain no information except that father died of Phthisis, and also that ten brothers and sisters had died mostly in childhood.

Case 7.—Mother died 12 years ago from Phthisis; this patient works in a textile factory.

Case 25.—This patient's father died of consumption 30 years ago. This attack of Phthisis followed influenza.

Case 29.—The brother of this patient died from consumption 39 years ago. Attack followed on influenza and pneumonia.

Case 32.—This patient's father died of Phthisis 6 years ago. Invalided home from South Africa, had suffered much hardship there, and had also seen active service in the Soudan, Chitral and Crete.

Case 44.—The father and sister of this patient died 10 years ago from consumption, and the patient himself has suffered from what is termed a weak chest since birth.

Case 45.—Numerous members of this family have suffered from consumption, but none during the last few years.

Case 55.—This patient was a stone-mason. His wife died of Phthisis after a long illness, but 10 years prior to this attack.

Case 65.—This patient's first husband died 5 years ago with consumption, after 9 years of married life. Is a worker in a textile factory, and disease followed an attack of influenza.

Case 66.—The patient's mother died of consumption many years ago, and also two brothers. Has been a moderately heavy drinker. His occupation is one in which much dust is created.

Case 69.—Marked family tendency to consumption, both direct and collateral. Occupation—much dust—rag sorting in paper mill.

Case 70.—This patient's mother died of consumption. He has been an intemperate man. Labourer.

Case 81.—This patient's brother died of Phthisis.

Case 103.—Father died of consumption. This patient has had a fairly hard life.

Case 105.—Father died some years ago from Phthisis. Patient has suffered

from a bad cough for four years. He has had a hard life. Worked in a textile factory.

Case 108.—Father's brother died of Phthisis 20 years ago. Gave way to intemperate habits some few years ago.

Case 109.—Direct and collateral history of Phthisis.

Case 112.—Collateral history of Phthisis.

Case 114.—Mother died of Phthisis, and this patient has suffered much from exposure.

Case 123.—Brother died of Phthisis some years ago. This patient has had a cough for four years.

SERIES 3.—Notifications received of persons who had been in frequent contact with persons suffering from Phthisis.

Case 5.—This patient's brother-in-law died less than 12 months ago from Phthisis, he spent much of his time during his illness at this patient's house.

Case 21.—This patient was a brass worker, his sister contracted Phthisis and he used frequently to visit her house.

Case 26.—Patient's brother died a few months ago and sister about six years ago, both from Phthisis. Visits to infected house frequent. This patient was a man of intemperate habits.

Case 52.—Patient, aged 20, was a regular visitor to her aunt's house who died of Phthisis.

SERIES 4.—Cases where the person notified had worked in close proximity to a Phthisical person.

Case 12.—This patient was a clerk. One of the men in his office had recently suffered from Phthisis.

Case 49.—This patient was a stone-mason, one of his workmates recently died from Phthisis.

Case 53.—Another stone-mason. Worked in same shed as case 55.

SERIES 5.—Cases of Secondary House Infection.

None unless the following case can be so regarded.

Case 10.—This patient is said to have contracted Phthisis whilst under treatment for another ailment in a special institution.

SERIES 6.—Cases following on acute illness.

Case 3.—Had an attack of influenza and pleurisy 5 years ago, and has never been well since.

Case 13.—Never well since an attack of influenza 3 years ago.

Case 35.—Present illness was ushered in by influenza.

Case 33.—“Has been in a decline” since influenza 5 years ago.

Case 42.—Had influenza 12 months ago.

Case 47.—Has suffered from two severe attacks of influenza.

Case 50.—Had influenza two years ago.

Case 80.—Severe attacks of influenza 18 and 6 months ago.

Case 83.—Influenza six months previous to present illness.

Case 57 and 118.—Dates the onset of illness from two attacks of Influenza.

Pneumonia.—

Case 15.—Suffered from pneumonia two years previous to infection; Case 22, 9 months previous; 35, 23 weeks previous; 36, 6 months ago; 126, 9 months ago, and case 95 dates the onset of Phthisis to an attack of pneumonia, but no record was contained in the notes as to the length of time since the attack.

Pleurisy.—

Case 62.—Suffered from pleurisy 16 months ago; case 87, 11 months ago, and case 107, 4 years ago. Case 79 also had pleurisy, but there is no note as to the date.

Pleurisy and Pneumonia.

Cases 16, 29 and 120a have suffered from pleurisy and pneumonia, and date their present illnesses from that attack.

Other Illnesses.

Case 60 suffered from bronchitis, case 98 had suffered from an indefinite illness from July, 1900, to August, 1901, and 116 had been delicate from birth.

Puerperal Fever.—During the year there were 5 deaths attributed to this disease, as compared with 6 in the previous year. The number of notifications of the existence of the disease was 14. The usual precautionary measures, which include the disinfection of the clothing of the midwife in attendance and frequently disinfection of the house have been continued.

I have devoted a fair amount of time to the execution of the Midwives' Act in the following direction:—It seemed desirable that all practising midwives who were eligible to be registered under the Act should be so registered, and in that way brought to a recognition of their duties as midwives, which I fear in some instances were not sufficiently appreciated. The names of all persons so practising were obtained by the district inspectors, who made enquiries of the better known midwives in their respective districts. These people were then invited in parties of about six to attend at my office, where I explained the objects of the Act and the method of obtaining registration. All necessary forms were obtained and given free of charge to such persons as desired them. I found that nearly every woman desired to be registered, the exceptions being in the case of very aged persons. The total number admitted to the register

will be included in the next report. I believe none were registered during 1903, as it was not until very late in the year that these meetings were held. I also discovered that there existed a genuine desire to do the work conscientiously, and nearly all stated that they would willingly attend a series of lectures on the subject of midwifery if I could arrange them. I brought this matter to the attention of the Président of the Medical Society, Dr. Vaudrey, and at his invitation a small sub-committee of the Society was formed to take such steps as they considered desirable. The result was that a series of 16 lectures based upon the suggestions contained in the rules of the Midwives' Board was arranged, and four lectures each were delivered by Drs. Cassidi, Copestake, Laurie, and Rice. The lectures were well attended, and I am certain heartily appreciated, for when I made a tour of inspection of the midwives' homes and examined their outfits, I was greatly impressed by the marked improvement which I found. The women nearly all had new print dresses; the bags were new and of good make, and the various accessories were all of an approved type, in numerous instances quite new, and purchased as a result of what had been explained to them at the lectures. The Education Committee kindly lent a room free of charge at the Technical College, and the Sanitary Committee promised to defray expenses. The thanks of all are due to the above-named gentlemen and to Mr. Collier Green, who acted as Secretary and arranged many of the details.

Influenza.—Influenza was registered as the cause of 27 deaths, as compared with 25 deaths last year. This number is somewhat below the average of the last ten years, viz., 30.8. The largest number of deaths occurred between the ages of 25 and 65. There were two deaths registered under the age of one year, as compared with eight at this early period of life in 1901.

School Notifications.—During the year 1903 notification forms were received from the various schools within the Borough, on which were notified the following cases:—

Mumps	237	Scarlet Fever	60
Whooping Cough ...	209	Diphtheria	36
Measles	128	Small Pox	6
Chicken Pox	97	Enteric Fever	5

The action taken in respect to these notifications has previously been referred to.

Factory and Workshop Inspection. A fair amount of work has been done by the district inspectors in the way of visiting and inspecting workshops. The woman inspector has also devoted some time to the supervision of places where women are chiefly engaged. The following table shows the number of workshops which have received attention in each inspectors district, and the total number of visits paid to each. Compared with the previous year there were slightly fewer premises inspected, but about the same number of visits were made.

TABLE X.—Workshops Inspections, 1903.

Number Inspected.					Description.	Number of Visits.				
District. a.	District. b.	District. c.	Woman Inspector.	Total.		District. a.	District. b.	District. c.	Woman Inspector.	Total.
...	...	1	.	1	Artificial Limb Making ...	...	...	2	...	2
1	1	...	...	2	Basket Making ...	1	3	...	...	4
...	2	...	...	2	Beer Bottling ...	...	2	...	...	2
1	2	1	...	4	Blacksmith ...	1	3	1	...	5
1	...	...	...	1	Blind Making...	3	...	...	...	3
...	4	5	...	9	Boat Repairing ...	...	4	9	...	13
1	...	...	...	1	Book Binding...	1	...	...	...	1
5	...	...	...	5	Boot Making and Repairing	5	...	...	...	5
1	...	...	...	1	Brush Making ...	2	...	...	...	2
6	3	3	...	12	Cabinet Making ...	6	19	4	...	29
...	1	1	...	2	Carriage Building ...	...	5	1	...	6
...	...	1	...	1	Chair Making ...	...	...	1	...	1
1	...	...	...	1	Chemist Manufacturing ..	1	...	...	...	1
2	...	...	...	2	Confectionery ...	2	.	...	...	2
...	1	...	...	1	Cork Cutting ...	...	1	...	...	1
2	2	...	...	4	Cycle Making and Repairing	4	2	...	...	6
...	1	3	85	89	Dress Making...	...	45	3	114	162
1	...	...	...	1	French Polishing ...	1	...	...	...	1
...	1	...	...	1	Fruit Preserving ...	...	21	...	...	21
...	1	...	...	1	Hosiery ...	...	3	...	...	3
5	2	1	...	8	Jewellers ...	5	3	2	...	10
3	...	3	...	6	Joiners...	3	...	5	..	8
...	1	...	...	1	Lace Mending ...	...	2	...	...	2
...	1	3	...	4	Laundries ...	...	2	7	...	9
...	...	1	...	1	Leather Curriers ...	...	...	1	...	1
...	1	...	...	1	Locksmiths ...	...	1	...	...	1
...	...	...	22	22	Millinery ...	...	...	...	30	30
2	1	3	...	6	Paper Bag Making ..	2	4	6	...	12
1	...	...	...	1	Perambulator Making ...	1	...	...	...	1
...	...	1	...	1	Photographer ...	...	...	2	...	2
...	...	...	3	3	Pinafore Making ...	...	...	...	3	3
...	1	...	...	1	Plaster Figure Making ...	...	2	...	...	2
1	2	1	...	4	Plumbers ...	1	2	1	...	4
1	...	...	...	1	Rope Making...	1	...	...	...	1
...	1	2	...	3	Saddlers ...	...	5	2	...	7
...	1	...	...	1	Spar Turning ...	...	2	...	...	2
...	1	...	...	1	Sugar Refining ...	...	25	...	...	25
11	9	9	6	35	Tailors...	13	22	13	6	54
...	2	2	...	4	Tinsmiths ...	...	2	5	...	7
...	...	1	...	1	Umbrella Making ...	...	...	1	...	1
1	1	...	...	2	Upholsterers ...	1	1	...	...	2
1	...	...	...	1	Varnish Making ...	1	...	..	...	1
2	2	2	...	6	Wheelwrights ...	2	2	3	..	7
50	45	44	116	255		57	183	69	153	462

In addition to the above list the following additional workshops have been added to the register. They have all been visited and details respecting the cubic capacity of the various rooms, heating, lighting, water supply, sanitary conveniences, etc., have been obtained, and entered on the register.

Additional Workshops Inspected during the year.

Workshops.	District. a.	District. b.	District. c.	Women. Inspector.	Total.
Boat Repairing	1	...	...	1
Cabinet Making	1	...	...	1
Carriage Building	1	...	...	1
Dress Making	13	13
Fruit Preserving	1	...	...	1
Jewellers	1	1	...	2
Joiner	1	...	...	...	1
Lace Mending	1	...	...	1
Plaster Figure Making	1	...	...	1
Saddler	1	..	...	1
Sugar Refining	1	...	..	1
Tailoring	3	...	1	4
Plumber	1	...	...	1
Totals ...	1	13	1	14	29

For various causes the following Workshops have been closed, and removed from the register.

Workshops.	District. a.	District. b.	District. c.	Women Inspector.	Total.
Tailors	2	2	1	5	10
Joiners	1	...	1	2	4
Paper Bag Makers ... ..	...	...	1	1	2
Saddlers ... ..	...	...	1	1	2
Tinsmiths	1	1	1	3	6
Perambulator Makers	1	...	...	1	2
Sugar Refiners ... ..	...	1	...	1	2
Basket Makers ... ..	...	1	...	1	2
Beer Bottlers... ..	...	1	...	1	2
Dress Makers & Milliners ... ..	...	...	...	8	8
Totals ...	5	6	5	24	40

Chiefly in the course of inspections the following defects were noticed, which in almost all cases were remedied before the end of year. In some cases the defects were brought to the notice of the Sanitary Department by the Factory Inspector; these receive separate tabulation.

				DISTRICTS.			Woman	Total.
				a.	b.	c.	Inspector.	
DRAINS OR SOIL PIPES :—								
Unstop drain	-	-	-	1	...	...	...	1
Relay drain	-	-	-	...	1	...	...	1
Provide new soil pipe	-	-	-	...	...	2	...	2
„ W.C., pan	-	-	-	...	...	2	...	2
„ waste pipe	-	-	-	...	...	1	...	1
„ gully & branch drain...					...	2	...	2
„ rain-water pipe	-			...	...	1	...	1
PRIVIES :—								
Demolish offensive privy	-			1	1	...	...	2
Remove from under workshop				...	1	...	...	1
MANURE PIT :—								
Remove	-	-	-	...	1	...	...	1
URINALS :—								
Reconstruct urinal	-	-	-	...	1	...	...	1
Remove from under workroom				...	1	...	...	1
W.C.'s. :—								
Provide additional W.C.	-	-	-	2	3	5	...	10
Shut off W.C. from workroom	-			...	2	...	...	2
Unstop choked W.C.	-	-	-	1	...	...	...	1
Ventilate W.C. and mask ap- proaches	-	-	-	2	...	1	...	3
Repair W.C.	-	-	-	...	1	...	...	1
WORKSHOP OR ROOM :—								
Cleanse and Limewash	-	-	-	4	9	10	2	25
Repair Spouting	-	-	-	...	1	...	...	1
Repair floor	-	-	-	...	1	...	...	1
Remedy overcrowding	-	-	-	1	...	...	1	2
Remove drain from inside	-			...	1	...	...	1
Shut off connection between workroom and stable	-	-	-	...	1	...	...	1
Remove animals from workroom				...	1	...	...	1
Totals				-	-	-	-	-
				12	26	24	3	65

Compared with last year it will be observed that there is a considerable decrease in the number of notices served, this is not due to any diminution in the energy displayed by the inspectors, but

rather to the fact that the previous year was the first occasion that systematic inspections of workshops had been undertaken, and in consequence the number of nuisances and objectionable conditions which were discovered was in excess of what may be now expected in any future year.

During the year 23 notices were received from H. M. Inspector of Factories calling attention to the following defects which had come under his observation :—

W.C.s ventilating into workrooms	...	...	...	5
W.C. drain choked	...	...	...	1
Workshops overcrowded	...	...	...	2
Insufficient or Defective Sanitary Conveniences	...			4
Dirty Workshops	..	...	...	13
				<hr/>
				25
				<hr/>

With four exceptions the above complaints have been remedied. The exceptions are cases where structural alterations in respect to the masking of the conveniences, remedying the ventilation, or providing additional accommodation have necessitated a report from the Surveyor under section 22 of the Public Health Amendment Act. I do not expect there will be any difficulty in these cases.

Outworkers.—The number of outworkers reported to the Derby Sanitary Authority was 778; they are classified as follows :—

Persons engaged in the Tailoring Trade	...	...	247
Lacemending	...	...	439
Chevening	...	...	22
Hosiery Work	...	...	36
Dressmaking and Millinery	..	...	29
Cabinet Making	...	...	2
Corset Making	...	...	1
Boot Repairing	..	...	1
Embroidery	...	...	1
Total	...	...	<hr/>778 <hr/>

There were included in the above the names of 32 outworkers who resided outside the Borough. The Medical Officer of Health

for the respective districts was communicated with. These cases included:—

Lacemending ...	...	...	...	27	
Tailoring ...	...	...	...	3	
Hosiery ...	...	...	...	2	Total <u>32</u>

It has not been possible to visit the homes of all these people, but the following 60 received attention:—

Netmenders ...	...	...	...	26	
Tailors ...	...	...	...	19	
Dressmakers and Milliners ...	...	...	...	4	
Hosiery Workers ...	...	...	...	11	Total <u>60</u>

As a result of these visits it was found necessary in two instances to serve notices requiring the occupier to cleanse and lime-wash the premises, and in one instance to require the owner to remedy a defective sanitary convenience.

Communications have been forwarded to H.M. Inspector of Factories during the year 1903 in respect to the following matters:—

No abstract affixed and protected hands employed ...	6
Unregistered Workshops	5
Miscellaneous	1

Previous to 1902 practically no work was done in respect to Workshop Inspections, and from the preceding tabulation of work done it will readily be recognised that a considerable amount of the Inspectors' time has been taken up by this work. This, of course, means to some extent a lessened amount of work done in other directions, and, as last year, I again strongly advocate the appointment of an additional inspector who could devote the whole of his time to this important and special branch of sanitary work; it would not only free the district inspectors for some amount of house-to-house inspection, but would ensure uniformity of action throughout the Borough in dealing with workshops and workplaces.

Bakehouses.—The provisions of the Factory and Workshops' Act, which apply to bakehouses, make it an offence for any direct communication to exist between the bakehouse and a closet or drain. Further, every bakehouse must be lime-washed once in each six months, or painted once in seven years, with a general washing of

the surface of the paint twice each year, and no bakehouse must have a sleeping place connected with it, unless such place is completely partitioned off and has an external window measuring nine square feet, made to open. 547 visits have been made to bakehouses to see that these conditions were observed. Seventy-five notices have been served to remedy the defects which were discovered. There were 103 bakehouses in occupation at the commencement of the year, since which time 7 other houses have been so used, viz., 3 old ones reopened and four new ones erected, as against which 9 places have been closed, making a total of 101 in use at the end of December, 1903. There is only one underground bakehouse.

Dairies, Cowsheds and Milkshops.—There were on the register at the end of the year 351 purveyors of milk who resided and retailed milk within the Borough, and also 121 persons who sold milk in the Borough, but who resided outside the boundaries. There were likewise 28 cow-keepers. Strict supervision is maintained over places where the retailing of milk is carried on, and where conditions exist which render the milk liable to objectionable contamination the occupier of the premises is induced to either cease selling milk or to provide suitable means to obviate the risk. No fewer than 1,638 visits of inspection were made to dairies and milkshops during the year. Ninety-three additional persons were registered for the sale of milk whilst the registration of 76 was cancelled.

Water Supply.—During the year the water supply of the Borough has been frequently submitted to analysis, and on no occasion did I discover any necessity to make a complaint. Further wells have been closed in the Alvaston area, and a large number of additional houses have been supplied with water from the town's mains.

Offensive Trades —The following are the principal offensive trades in the Borough :—

Bone Boiling ...	...	1	Soap Boiling ...	...	1
Fellmongers ...	...	2	Tallow Melters ...	...	2
Gut Scraping ...	...	1	Tripe Boilers ...	...	4
Leather Tanner ...	...	1	Varnish Manufactory ...	...	1
Skin Splitting ...	...	1	White Leather Manufacture		1

Common Lodging Houses.—The number of common Lodging Houses now on the register is 16, two additional houses having been registered during the year. It was found necessary to institute pro-

ceedings in two cases for offences against the bye-laws, the particular offence being in each case the use of the kitchen of the common lodging house as a sleeping room. In each case a conviction was obtained. 2,577 visits of inspection were made, and as a result of these inspections 57 written or verbal notices were given, which resulted in 114 complaints being remedied. The number of visits of inspection was considerably in excess of those in previous years. The prevalence of Small Pox during the greater part of the year necessitated additional attention being paid to these houses. I referred last year to the assistance which the registered keepers tendered to the sanitary officials in respect to Small Pox work, and I have again to state that their alertness and careful scrutiny in respect to strange lodgers resulted in several cases of Small Pox being discovered at a very early stage of the disease which, in consequence, materially aided in preventing any extension. There has been a considerable influx of persons into the town, who usually patronise common lodging houses, owing to the extensive sewerage disposal works which are in course of progress, and the tramways work, but apparently these persons have all been easily accommodated in the existing houses without any overcrowding, neither has overcrowding in private houses been discovered to a greater extent than in previous years.

In addition to the Common Lodging Houses, there are 41 houses let out in tenements. As in the case of the Common Lodging Houses, a large increase of inspectorial work has been necessary during the year, and 2,662 visits were paid to these places. It was found necessary to take proceedings in one case for overcrowding, and a fine of 5/- and costs was inflicted. 246 contraventions of bye-laws or sanitary defects were remedied as a result of 132 notices. These houses are not all that could be desired, neither in respect to structure nor situation, still they have to exist as a necessary evil, and they are made as suitable as possible for the purpose for which they are used.

Slaughter Houses.—Nearly 7,000 visits were paid to the 77 slaughter-houses, but even with this amount of supervision only a fair proportion of the carcasses which were slaughtered came directly under the inspector's notice, and, as I have stated in previous reports, careful inspection of the meat is perhaps of greater importance than the simple supervision of offensive conditions or nuisances on premises where the animals are slaughtered.

About 6 tons of various articles which were intended for human consumption were destroyed. Of this amount, 3,021 lbs. represents the weight of butchers' meat, and 7,107 lbs. is the total amount of fish. This large amount of fish, as compared with butchers' meat, is probably due to the fact that the distance from the coast is so considerable that delays in transmission from the fishing centres to Derby often result in the fish being unmarketable on arrival. 2,176 lbs. weight of shell fish was destroyed, as well as 1,045 lbs. of various other articles.

Woman Inspector.—The work done by the Woman Inspector continues to justify the appointment. During the year an extension of this class of work was decided upon; to this I have already referred, viz., the appointment of two nurses who devote part of their time to health visiting, details of which are contained in the following report prepared by Miss Fitzgerald, which outlines the special work on which these members of the staff were engaged during 1903:—

“In accordance with your request I make the following report on the visits paid by the Woman Sanitary Inspector during 1903, and also upon the work of the Nurses engaged in health visiting.

The following is a summary of the visits made by my predecessor, Miss McCleverty, from January 1st to October 31st, and by myself from October 26th to December 31st inclusive:—

Months.	Births.	Infant Deaths.	Special Visits.	School Notifi- cations.	Work- places.	Work- shops.	Out- workers.	Total.
January ...	280	30	62	18	3	25	14	432
February	310	25	69	30	...	2	18	454
March ...	298	18	40	5	1	3	...	365
April ...	331	37	32	4	...	1	...	405
May ...	313	23	43	4	1	8	5	397
June ...	284	16	51	1	...	3	21	376
July ...	331	21	15	20	...	11	...	398
August ...	321	31	74	3	2	26	...	457
September	354	50	31	1	10	18	...	464
October ...	348	39	40	39	...	22	2	490
November	290	27	29	9	...	38	...	393
December	316	23	28	9	...	21	...	397
Totals ...	3776	340	514	143	17	178	60	5,028

Special visits include visits on account of the delicate condition of the infants, visits re disinfection after Phthisis, and any visits concerning complaints received.

Of these 5,028 visits,
 467 were second visits on account of non-admittance on 1st visit.
 120 „ third „ „ „ 2nd „
 42 „ fourth „ „ „ 3rd „
 17 „ fifth „ „ „ 4th „
 3 „ sixth „ „ „ 5th „
 1 „ seventh „ „ „ 6th „
 1 „ eighth „ „ „ 7th „

Nurses Cash and Hodgkinson from the Royal Derbyshire Nursing Institute, appointed to assist the Woman Inspector in health visiting work, commenced their duties on November 17th, 1903, and paid 238 visits before the end of the year, working two afternoons a week each. The classification of their visits is as follows:—

Visits of instruction to mothers respecting infant feeding					
and management	...	...	...	...	66
Visits to Phthisical Patients in their homes	...	...	...	...	89
School Notifications	...	...	...	...	83
					<hr/>
					238
					<hr/>

Visits respecting infants are paid by the Nurse in cases where neglect or improper feeding is discovered on the first visit paid by the Inspector when the birth is registered. The frequency of the Nurse's subsequent visits depends upon the improvement in the child's condition, and upon indications that the mother is beginning to act upon the advice given. Cases of neglect sufficiently grave to necessitate weekly visits for a time from the nurse have been discovered. A somewhat different and more genuinely educational side of this work consists in periodical visits paid to young and inexperienced mothers, who, solely from lack of instruction, and not by any means from wilful neglect, are found to be making mistakes likely to have serious consequences upon the infant's present health and future well-being. Advice offered in these latter cases is, as a rule, received gratefully, and the improvements consequent upon carrying out the instructions given seem to be intelligently appreciated. There is already sufficient ground to justify expectation of good results from this part of the work.

A record of the Nurse's visits to infants is kept in a register arranged as follows :—

Pro- gressive No.	Name.	Age.	Address.	Date of Visits.	Remarks.

In the "remarks" column are noted any changes in condition and in the method of feeding, as they occur. This register will therefore form a record of the first year's history of those infants who, for the reasons described above, have been kept under observation.

Phthisis Cases.—Visits are paid by the Nurse to the homes of phthisical patients usually about once a month, more frequently if necessary. On the first visit a leaflet describing the precautions to be taken against consumption is left, and verbal instructions are also given, regard being had to the comfort of the patients as well as the safety of those in contact with them. An initial difficulty is experienced in overcoming the ignorance which prevails as to the infectious nature of phthisis. Once persuaded of this, however, a willingness to take precautions is generally expressed, but repeated visits are necessary in order to counteract slackness and forgetfulness. As a result of the regular visiting of phthisical patients all removals are noted, and the houses from which the patients have removed are, if empty, disinfected by arrangement with the landlord, or, if already re-occupied before a visit can be paid, disinfection is offered to the new tenants, and if declined by them, they are advised to wet cleanse the premises.

The amount of work accomplished by the Nurses in the short time they have been working for the Public Health Department, and the manner in which the work has been carried out, testify to the energy and intelligence with which they took up their duties."

Meteorological Records.—I have to thank Mr. W. G. Carnt, Secretary-Superintendent of the Derbyshire Royal Infirmary, for the information from which the subjoined table has been compiled. The highest mean shade temperatures were recorded during the month of July. The greatest variation between the maximum and minimum temperatures was observed during the months of June and July.

December was the coldest month, and most rain fell in October, the greatest number of rainy days (29) were also recorded in that month. The heaviest rainfall in the twenty-four hours was 1.12 inches on the 24th August. Nearly an inch of rain fell on the 10th of September.

TABLE **XI.**—Shewing the Means of the Meteorological observations taken at the Derbyshire Royal Infirmary for the 12 months ended 31st December, 1903.

1903.	THERMOMETERS.				Rainfall in inches.		Greatest fall in 24 hours.		No. of Rainy days, 1903.
	Dry Bulb.	Wet Bulb.	Shade Temperature.		Infirmary Grounds 1903.	1902.	Amount in inches.	Date.	
			Maxi-mum.	Mini-mum.					
January ...	38.7	37.3	43.6	35.0	2.07	1.04	.34	5th,	20
February	43.6	41.6	49.7	39.1	1.26	1.66	.35	24th,	13
March ...	44.3	42.0	51.8	38.3	3.51	1.61	.74	17th,	21
April ...	44.9	41.2	51.4	36.5	1.89	2.36	.59	30th,	15
May ...	52.3	48.9	58.8	44.1	3.08	2.86	.70	1st,	19
June ...	57.2	52.4	64.0	47.3	1.29	2.64	.44	13th,	9
July ...	61.4	55.5	68.5	52.5	2.26	1.54	.55	25th,	17
August ...	59.1	55.1	64.2	50.9	4.88	3.19	1.12	24th,	19
September	56.0	53.3	64.0	48.6	2.80	1.70	.92	10th,	16
October ...	50.7	48.4	56.3	46.0	5.59	2.75	.86	27th,	29
November	42.5	41.1	48.5	38.0	2.14	1.79	.55	27th,	20
December	38.2	36.7	41.7	34.8	1.25	1.73	.41	8th,	14

SANITARY INSPECTOR'S REPORT, 1903.

Ford Street Stables.

Number of Horses at last Report	...	73	
Bought during the year	...	4	
		—	77
Disposed of	...	3	
Surveyor's Horses sent to Nottingham			
Road Stables	...	2	
		—	5
Horses remaining at Ford Street	...	72	
Inspector's Department	...	40	
Surveyor's	...	26	
Police and Fire	...	6	

Privy and Ash-Pit Cleansing.

Night-work.—Privies cleaned	...	7,690
„ Ash-pits cleansed	...	4,330
„ Privy Cesspools cleansed	...	900
Day-work.—Dry Ash-pits cleansed	...	756
Total	...	<u>13,676</u>

Refuse Collected.

Night-work.—Loads (Excreta only)	...	6,232
„ „ Ashes and Excreta	...	4,150
„ „ Ashes only	...	3,360
Day-work.— „ Ashes	...	22,937
		<u>36,679</u>

Refuse Disposal.

Disposed of as Manure 9,815 tons 13 cwt.
 By Boats 453 loads.
 By Customers' own Carts 532 $\frac{1}{4}$ tons.
 Delivered to Farmers from pits 2,602 cart loads.
 Deposited on tips 670 cart loads, = 679 tons.
 Burned in the Destructors 25,919 tons.
 Extracted from night refuse 1,801 tons.
 Day ashes and trade refuse 24,118 tons.

Extracted from refuse and sold, 18 tons 19 cwts. 3 qrs. of scrap iron, 175 lbs. of solder.

Inspections of Workshops, 1903.

These were undertaken as part of the ordinary work of the District Inspectors, and alterations and improvements effected as set out in details contained in the report of the Medical Officer of Health.

Bakehouses.

Places in use at commencement of year...	...	103
Old houses re-opened	... ..	3
New houses opened ...	... ..	4
		<hr/>
		110
Houses closed	... ..	9
		<hr/>
Bakehouses in use at 31st Dec., 1903	...	101
Bakehouses not in use	... ..	47
		<hr/>
Total ... ..	...	148
		<hr/>

Two houses and ovens have been rebuilt.

75 notices served secured the remedy of 85 defects.

Visits of inspection 547.

Canal Boats.

Annual Report for the year 1903, in accordance with Section 3, Canal Boats Act, 1884.

1. Inspector and Salary, Chief Inspector and Assistant. No salary allocated.

Address: Sanitary Inspector's Office, Ford Street, Derby.

2. Boats inspected 102. Visits to Canal 112.

3. Infringements of Acts and Regulations 9.

<i>a.</i> —Registration	... ..	0	<i>i.</i> —Painting	... ..	0
<i>b.</i> —Change of Master	... ..	0	<i>j.</i> —Provision of water cask		2
<i>c.</i> —No Certificate on board	1		<i>k.</i> —Removal of bilge water		0
<i>d.</i> —Absence of Marking	... ..	0	<i>l.</i> —Notification of Infectious		
<i>e.</i> —Overcrowding	.. ..	2	Diseases	... ..	0
<i>f.</i> —Separation of Sexes	... ..	0	<i>m.</i> —Admittance of Inspector		0
<i>g.</i> —Cleanliness	... ..	0	<i>n.</i> —Boats found in bad repair		4
<i>h.</i> —Ventilation	... ..	0			

4.—Legal proceedings taken, none.

5.—Other steps taken: 8 caution forms and numerous letters sent to owners of boats, and verbal cautions to masters.

6.—Cases of infectious diseases dealt with, none.

7.—Detention of boats for cleansing and disinfection, none.

8.—Number of boats on Derby register, 47.

9.—Number registered in 1903, none.

Common Lodging Houses.

Houses in use in January, 1903	...	...	...	14
New registrations effected	...	...	...	2
				<hr/>
				16
				<hr/>

Two prosecutions were taken for offences against the bye-laws, and fines inflicted as per table.

Visits of inspection, 2577.

57 written and verbal notices were given, resulting in the remedy of 114 complaints.

Contagious Diseases Animals Acts.

Regular attendance has been made at the Cattle Markets under these Acts, and also for the purpose of detecting unsound animals exposed for sale and intended for human food, and by this means the practice of bringing undesirable animals for sale has been almost abolished. The credit for this is entirely due to the attention, ability, and tact of Inspector Turner, and his good work is further exemplified in the table of unsound food destroyed.

Two cases of Swine Fever were reported during the year, but after inspections and post mortems by the Veterinary Surgeon, death was found to have been caused by other diseases.

The constant visiting and disinfection of Pig-dealers' premises has still to be carried out.

Registered Slaughter Houses.

Demolished—private	1
--------------------	-----	-----	-----	-----	-----	---

At the end of the year 1903:—

In the hands of private holders	52
---------------------------------	-----	-----	----

Corporation Houses let to private tenants	...	18
„ „ used as public	... ..	3
Standing empty—private	... ..	2
„ „ corporation	.. ...	2
		<hr/>
		77
		<hr/>

Visits of inspections for the year, 6,957.

Dairies, Cowsheds, and Milkshops.

Dairymen or Purveyors resident within the Borough:—

At 31st December, 1902	...	...	...	338
Registered 1903	...	...	...	87
				<hr/>
				425
Cancelled	...	...	...	74
				<hr/>
On Register	...	...	...	351
				<hr/>

Purveyors resident outside the Borough:—

At 31st December, 1902	...	...	...	117
Registered, 1903	...	...	...	6
				<hr/>
				123
Cancelled	...	...	...	2
				<hr/>
				121
				<hr/>

Cowkeepers:—

At 31st December, 1902	...	...	...	29
Registered, 1903	...	...	...	5
				<hr/>
				34
Cancelled	...	...	...	6
				<hr/>
On Register	...	...	...	28
				<hr/>

For particulars of notices served and complied with, see general table "Nuisances dealt with."

Vists of inspection, 1,638.

Houses Let in Lodgings.

On Register 31st Dec., 1902	...	...	...	35
New Registrations	...	...	...	5
Old Houses re-opened	...	...	...	1
				<hr/>
				41
				<hr/>

Visits of inspection, 2,662.

One prosecution had to be taken for overcrowding, and a fine was imposed.

132 Notices given secured the abatement of 246 contraventions of bye-laws or sanitary defects.

Unsound Food.

CONDEMNED AND DESTROYED.

541 lbs. Beef.	1,204 lbs. Liver, Lungs, &c.
487½ lbs. Cat Fish.	1,600 lbs. Mussels.
2 Calves, weighing together 115 lbs.	122 lbs. Mutton.
10 Chickens.	320 lbs. Pears.
420 lbs. Cockles.	1 Pig, weighing 168 lbs.
1,026 lbs. Cod Fish.	1,575 lbs. Plaice.
1 Cow, weighing 572 lbs.	156 lbs. Prawns.
480 lbs. Dates.	111 Rabbits.
1 Diseased Fowl.	12 lbs. Sheeps' Hearts.
1,302 lbs. Haddocks.	1,113 lbs. Spragg.
1,120 lbs. Herrings.	1 Turkey.
192 lbs. Hogs' Kidneys.	95 lbs. Veal.
140 lbs. Lemon Soles.	36 lbs. Water Cress.
196 lbs. Ling.	148 lbs. Witches.
	98 lbs. Yeast.

NUISANCES

NOTICES SERVED.

Ashpits ...To Demolish	4
„ Repair	1
Drains „ Cleanse and Repair (or Soil Pipes)	221
„ Disconnect from Sinks or Cellars... ..	1
„ Provide (or Soil Pipes)	12
„ Re-lay Defective	131
„ Remove from inside Houses	6
„ „ Soil Pipes from inside Houses	10
„ Replace Brick	1
„ Trap Inlets and provide or repair Inspection Chambers	23
„ Ventilate (or Soil Pipes)	1
Houses ... „ Cleanse	24
„ „ and Limewash Cellars	1
„ Damp Course and make Dry	13
„ Prevent Overcrowding	7
„ Provide Ash Bins	61
„ Repair Cellar Coverings	3
„ „ Dangerous Walls or Buildings	5
„ „ Paving Yards or Passages... ..	24
„ „ Roofs, Floors, &c.... ..	37
„ „ Disconnect or provide Spouting	35
„ Ventilate Rooms	10
Privies..... „ Cleanse and Repair	16
„ Convert to W.C.'S	297
„ Demolish	1
Urinals..... „ Erect	2
„ Remove	1
„ Repair	2
Water..... „ Cleanse and Repair Foul Softwater Tanks & Pumps	13
„ Fill in disused Wells	5
„ Provide with Town Water (Houses)	42
„ Repair Covers of Tanks or Wells... ..	2
W.C.'S..... „ Cleanse and Repair	22
„ Lay on Flushing Water	10
„ Provide Additional	8
„ Repair Fittings	17
„ Ventilate	6
For Bakehouses	76
„ Common Lodging Houses	62
„ Dairies, Cowsheds, and Milkshops	171
„ Factories and Workshops	30
„ Houses Let in Lodgings	132
„ Slaughter Houses	20
„ Smoke Nuisances	14
To Remove Accumulations of Manure, &c., and Cleanse Premises	32
„ „ Fowls or Animals	35
„ „ Manure Pits or Cesspools	11
„ „ Stagnant Water	1
Waste Pipes, to provide, unstop, repair, renew, trap, ventilate, &c.	9
Stables, to Drain and Pave... ..	1
Abate Nuisances (Miscellaneous)	8
To Cleanse Ice Cream Premises	1
Offensive Trades, to Limewash, &c.	5
Total	1683

DEALT WITH.

RESULTS OF NOTICES.

Ashpits	Demolished	...	...	...	...	...	355
	Repaired	...	...	...	...	...	7
Drains	Cleansed or Repaired (or Soil Pipes)...	...	...	...	...	712	
	Disconnected from Sinks or Cellars	...	...	...	...	121	
	Provided (or Soil Pipes)	...	...	...	...	951	
	Re-laid and new	...	...	...	...	1278	
	Removed from inside Houses...	...	...	...	...	98	
	Soil Pipes removed from inside Houses	...	...	...	...	19	
	Brick replaced by Salt-Glazed E. S. Pipes	...	...	...	...	25	
	Inlets trapped and Inspection Chambers provided	...	...	...	...	...
	or repaired	...	...	...	...	1944	
	Soil Pipes and Drains Ventilated	...	...	...	...	316	
Houses	Cleansed	...	...	...	...	154	
	Cellars Cleansed and Limewashed	...	...	...	...	33	
	Damp Coursed and made dry...	...	...	...	...	42	
	Overcrowding prevented	...	...	...	...	10	
	Ash-bins provided	...	...	...	...	586	
	Cellar Coverings repaired	...	...	...	...	19	
	Dangerous Walls or Buildings repaired	...	...	...	...	40	
	Paving of Yards and Passages repaired	...	...	...	...	466	
	Roofs, Floors, &c., repaired	...	...	...	...	250	
	Spouting repaired, disconnected, or provided	...	...	...	...	227	
	Rooms ventilated	...	...	...	...	29	
Privies	Cleansed and repaired...	...	...	...	...	59	
	Converted to W.C.'s	...	...	...	...	622	
	Demolished	...	...	...	...	86	
Urinals.....	Erected	...	...	...	...	17	
	Removed	...	...	...	...	4	
	Repaired	...	...	...	...	3	
Water.....	Soft Water Tanks cleansed and repaired, and Pumps	...	...	...	...	...
	repaired	...	...	...	...	131	
	Disused Wells filled in...	...	...	...	...	32	
	Provided with Town Water (Houses)...	...	...	...	...	490	
	Covers of Tanks or Wells repaired	...	...	...	...	8	
W.C.'s.....	Cleansed and repaired...	...	...	...	...	70	
	Flushing Water laid on	...	...	...	...	130	
	Additional provided	...	...	...	...	17	
	Fittings repaired	...	...	...	...	64	
	Ventilated	...	...	...	...	19	
Bakehouses	Contraventions remedied	...	...	...	...	86	
Common Lodging House	„	„	...	...	...	110	
Dairies, Cowsheds, and Milkshops	„	„	...	...	...	194	
Factories and Workshops	„	„	...	...	...	41	
Houses let in Lodgings	„	„	...	...	...	226	
Slaughter House	„	„	...	...	...	11	
Smoke Nuisances—abated	...	...	...	...	...	7	
Accumulations of Manure, &c., removed and premises cleansed	...	...	...	...	...	74	
Fowls and Animals removed	...	...	...	...	...	46	
Manure Pits or Cesspools removed	...	...	...	...	...	26	
Stagnant Water removed	...	...	...	...	...	2	
Waste Pipes, &c., provided	...	...	...	...	...	112	
Stables—Drained or Paved	...	...	...	...	...	17	
Nuisances abated (Miscellaneous)	...	...	...	...	...	5	
Ice Cream Premises Cleansed	„	...	...	...	...	3	
Offensive Trades, Limewashing, &c.	...	...	...	...	...	7	

Total 10401

Police Court Proceedings.

No. of Cases	Offence.	Results.	Total Costs.		
			£	s.	d.
I	Selling Adulterated Brandy	Fined 10/- and Costs	I	8	0
I	„ „ Whiskey	Fined 10/- and Costs	I	8	0
I	„ „ „	Fined 10/- and Costs	I	8	0
I	„ „ Gin ...	Fined 10/- and Costs	I	8	0
I	„ „ Milk ...	Fined 2/6 and Costs	I	0	6
I	„ „ Gin ...	Fined 5/- and Costs...	I	3	0
I	„ „ Rum ...	Fined 20/- and Costs	I	18	0
I	„ „ Brandy	Fined 20/- and Costs	I	18	0
I	„ „ Rum ...	Fined 20/- and Costs	I	18	0
I	Defective Drains	Ordered to abate and pay costs ...	0	9	0
I	Covering up work before inspection	Fined £2 and Costs	2	7	6
I	Selling Adulterated Milk ...	Fined 5/- and Costs	I	3	0
I	„ „ Gin ...	Fined 2/6 and Costs	I	1	0
I	Exposing Diseased Liver for sale	Fined £8 and Costs	8	9	6
I	Exposing Unsound Rabbits for sale	Fined £2 2s. od. and Costs	2	14	0
I	Having sold 14 Unsound Rabbits	Fined £2 2s. od. and Costs	2	14	0
I	Houses unfit for habitation	Order made to close within 14 days ...	...	
I	Overcrowding House let in Lodgings	Fined 5/- and Costs	0	12	6
I	Using Com. Lodg. House Kitchen as sleeping-room	Fined 10/- and Costs	0	17	6
I	Ditto, ditto	Fined 5/- and Costs	0	12	6

Food and Drugs Acts.

Samples Submitted to the Borough Analyst.

Samples.	Article.				Genuine.	Adulterated.
15	Brandy	...	...	...	14	1
8	Butter	...	...	...	8	...
4	Cocoa...	...	...	...	3	1
3	Coffee...	...	...	...	3	...
13	Gin ...	...	...	..	10	3
32	Milk ...	...	...	...	30	2
13	Rum ...	...	...	...	11	2
22	Whiskey	...	...	...	20	2
110					99	11

This result shows that 10 % of the samples were found adulterated.

W. WILKINSON,

CHIEF INSPECTOR.

BOROUGH SURVEYOR'S REPORT.

MANHOLES AND SEWERS CLEANED OUT
DURING THE YEAR 1903.

	Loads.		Loads.
Arthur Street ...	1	Nottingham Road ...	10
Brighton Road ..	7	Noel Street ...	1
Bridge Gate ...	26	North Parade ...	2
Bridge Street ...	2	New Chester ...	2
Cotton Lane ...	3	Old Normanton ...	2
Camden Street ...	1	Osmaston Road ...	4
City Road ...	3	Parker Street ...	4
Chester Green Road ...	2	Phoenix Street ...	2
Duke Street ...	4	Roman Road ...	1
Eton Street ...	1	Spa Lane ...	2
Freehold Street ...	33	Slack Lane ...	12
Gisborne Street ...	2	Sowter Road ...	1
Harrow Street ...	1	Shaftesbury Street ...	1
Hulland Street ...	3	St. Thomas' Road ...	2
Kedleston Road ...	2	Vale Street ...	2
London Road ...	22	Yates Street ...	6
Litchurch Lane ...	2		
Liversage Street ...	1		
Normanton Road ...	6		
		Total ...	176

River Derwent Dredging ... 736 Loads.

MANHOLES CONSTRUCTED DURING THE
YEAR 1903.

Alfreton Road ...	1	Coburg Street ...	3
Albert Street ...	1	Cambridge Street ...	2
Arthur Street ...	2	Dale Road ...	1
Bedford Lane ...	2	Depôt Street ...	2
Burton Road ...	5	Fleet Street ...	1
Brook Street ...	1	Franchise Street ...	1
Bold Lane ...	1	Freehold Street ...	3
Cedar Street ...	1	Graham Street ...	3
Church Street ...	2	Haarlem Street ...	1
Carrington Street ...	1	Hulland Street ...	1

Kedleston Road	...	...	2	St. Alkmund's Churchyard	...	1
London Road	...	...	18	Trinity Street	...	1
Lower Dale Road	...	...	1	Uttoxeter Road	...	1
Loudoun Street	...	...	1	Uttoxeter New Road	...	4
Mundy Pleasure Ground	...	...	2	Vernon Street	...	1
Madeley Street	...	...	2	Vale Street	...	1
Midland Road	...	...	1	Wilson Street	...	1
Normanton Road	...	...	3	Whitaker Street	...	1
Osmaston Road	...	...	6			
Parliament Street	...	...	1			
Rose Hill Street	...	...	1			
St. Thomas' Road and						
Balaclava Road	...	...	5			
				Total	...	89

NEW SEWERS LAID DURING THE YEAR 1903.

Arundel Street	9" Extension	London Road	9" Extension
Bedford Lane	9"	London Road	6" "
Burton Road	12" Extension	Mundy Pleasure Ground	24" Cul-
Burton Road	12" "		verted Brookcourse
Burton Road	9" "	Midland Road	12" Extension
Carrington Street	9" "	Osmaston Road	12" "
Dale Road	18"	Osmaston Road	9" "
Depôt Street	9" Extension	Osmaston Road	18" "
Fleet Street	12" "	Rose Hill Street	12" "
Hulland Street	12" "	St. Thomas' Rd. }	12" & 9"
Kedleston Road	24" Culverted	& Balaclava Rd. }	
	Brookcourse	Vernon Street	12" Extension
London Road	12" Extension		

WATER USED DURING THE YEAR 1903.

	Gallons.
Sewer Flushing	6,754,400
Court Flushing	357,500
Street Watering	10,849,200
Steam Rolling	1,121,040
Cab Stands, Bridges, Wood-paving, &c.	293,875
Total	19,376,015

Disinfectant Powder used during 1903 ... 4 Tons.
Disinfectant Fluid used during 1903 ... 1,460 Gallons

JOHN WARD,
BOROUGH SURVEYOR.

APPENDIX I.

COUNTY BOROUGH OF DERBY.

Vital Statistics for Whole District during 1903 and previous years.

YEAR.	Population estimated to Middle of each Year.	Births.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total Deaths in Public Institutions.	Deaths of Non-residents registered in Public Institutions in District.	Deaths of Residents registered in Public Institutions beyond Dist.	Nett Deaths at all ages belonging to the Dist.	
		Number.	*Rate.	Under One Year of Age.		At all Ages.					Number.	*Rate.
				Number.	Rate per 1,000 Births registered.	Number.	*Rate.					
1	2	3	4	5	6	7	8	9	10	11	12	13
1893.	96,648	3,123	32.4	485	155	1,772	18.4	237	32	...	1,740	18.1
1894.	97,781	2,890	29.6	351	121	1,490	15.3	189	22	...	1,468	15.1
1895.	98,927	2,900	29.4	459	158	1,698	17.2	216	29	...	1,669	16.9
1896.	100,087	2,834	28.4	426	150	1,620	16.2	234	43	...	1,577	15.8
1897.	101,262	2,803	27.7	470	163	1,720	17.0	286	64	...	1,656	16.4
1898.	102,448	2,860	28.0	484	169	1,830	17.9	197	74	...	1,756	17.2
1899.	103,649	2,984	28.8	488	163	1,856	18.0	310	81	...	1,775	17.2
1900.	104,684	2,900	27.7	504	173	1,932	18.5	342	78	...	1,854	17.7
1901.	106,076	2,939	27.8	455	155	1,673	15.8	304	75	..	1,598	15.1
1902.	116,869	3,326	28.5	417	126	1,698	14.6	290	59	...	1,639	14.1
Averages for years 1893-1902.	102,843	2,956	28.8	454	154	1,729	16.9	261	56	...	1,673	16.3
1903.	118,707	3,215	27.09	411	128	1,671	14.08	309	75	...	1,596	13.45

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

Area of District in acres (exclusive of area covered by water) 5,272 acres.

Total Population at all Ages	114,848	} At Census of 1901.
Number of inhabited houses	...	...	...	...	...	...	24,851
Average number of persons per house	...	...	...	...	...	...	4.7

Vital Statistics of separate Localities in 1903 and previous years.

[illegible]

Note re-arrangement of Ward Boundaries for 1902. It is impossible to group the old arrangement so as to render them statistically comparable with the new arrangement.

APPENDIX III.

COUNTY BOROUGH OF DERBY.

Cases of Infectious Disease notified during the Year 1903.

NOTIFIABLE DISEASES.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.															NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.																						
	At all Ages.	At Ages—Years.						Abbey.	Arboretum.	*Babington.	Becket.	Bridge.	Castle.	Dale.	†Derwent.	Friargate.	King's Mead.	Litchurch.	Markaton.	Normanton.	Osmaston.	Pear Tree.	†Rowditch.	†Strangers.	Abbey.	Arboretum.	*Babington.	Becket.	Bridge.	Castle.	Dale.	†Derwent.	Friargate.	King's Mead.	Litchurch.	Markaton.	Normanton.	Osmaston.	Pear Tree.	Rowditch.	†Strangers.	Totals.			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.																																						
Small-pox ...	48	2	2	16	6	22	...	1	3	5	...	3	..	7	...	4	3	1	...	5	1	6	5	4	1	3	5	...	3	...	6	...	4	3	1	...	5	1	6	5	4	47			
Cholera			
Diphtheria...	83	...	10	56	6	11	...	2	1	3	3	7	1	1	2	45	6	5	3	...	1	...	3		
Membranous Croup			
Erysipelas ...	135	3	3	4	22	91	12	4	10	15	9	2	15	7	8	7	7	12	8	6	7	6	7	5		
Scarlet Fever ...	185	2	57	97	22	7	...	10	5	19	7	11	4	6	14	29	19	6	10	10	5	15	14	1	4	1	13		
Typhus Fever		
Enteric Fever ...	62	...	2	9	24	27	...	5	5	5	1	2	9	1	2	...	4	3	3	4	8	2	6	2	4	1	4	1		
Relapsing Fever		
Continued Fever ...	2	1	...	1		
Puerperal Fever ...	14	5	9	...	1	1	2	2	1		
Plague	
Phthisis	
(Voluntary Notification)	119	..	1	9	25	84	...	6	5	8	6	3	9	7	5	3	13	13	8	3	9	4	3	14
Totals ...	648	7	75	192	110	252	12	29	30	55	26	28	38	31	33	89	52	40	32	33	32	34	39	27	10	5	26	2	7	17	9	10	25	17	8	5	9	6	16	16	13	201			

* Royal Infirmary for Treatment of Enteric Fever and Diphtheria Cases.

† Derby Borough Isolation Hospital for treatment of Cases of Scarlet Fever and Small Pox.

Non-Residents are noted in column marked ‡.

} 23 Royal Infirmary.
2 Union Workhouse.

Royal Infirmary.

Causes of, and Ages at, Death during Year 1903.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN OR BELONGING TO LOCALITIES (AT ALL AGES).																TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Strangers.	
	ALL AGES.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Abbey Ward.	Arboretum Ward.	Babington Ward.	Becket Ward.	Bridge Ward.	Castle Ward.	Dale Ward.	Derwent Ward.	Friargate Ward.	King's Mead Ward.	Litchurch Ward.	Markaton Ward.	Newton Ward.	Osmaston Ward.	Pear Tree Ward.	Rowditch Ward.			
Small Pox	2	1	...	...	...	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	...
Measles	5	1	4	...	...	...	...	...	...	1	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	8	...	3	4	...	1	...	1	...	...	...	...	...	...	2	...	2	...	1	2	...	...	...	...	1	...
Whooping Cough ...	32	13	19	...	...	...	...	5	4	...	1	...	...	2	1	6	5	1	4	2	...	...	...	...	...	...
Diphtheria and Membranous Croup	3	...	2	1	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...
Croup	2	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...
Fever { Typhus	7	...	...	...	2	5	...	...	1	...	...	...	...	1	...	...	...	...	1	1	1	2	...	...	3	1
{ Enteric ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Other Continued ...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza ...	27	2	3	...	3	15	4	2	3	4	1	1	1	4	1	1	1	1	1	4	...	2	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa.	51	41	8	...	...	...	2	8	1	1	2	2	11	2	2	2	6	...	4	3	...	4	3	2	...	...
Enteritis.	14	8	3	2	1	...	...	1	1	3	...	...	2	1	1	1	...	2	...	1	...	...	1	3	...	
Puerperal Fever ...	5	...	...	...	2	3	...	...	1	...	...	...	...	1	...	...	...	...	...	3	...	...	...	1	...	...
Erysipelas	7	2	...	...	...	5	...	...	...	...	...	1	2	...	...	...	1	1	1	...	...	1	...	4	1	
Other Septic Diseases ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...
Phthisis... ..	102	2	2	2	19	77	...	10	5	7	5	6	10	4	4	9	11	6	4	7	4	5	5	14	2	...
Other Tubercular Diseases ...	62	19	19	9	4	10	1	5	6	9	3	2	2	4	2	6	6	2	5	2	4	2	2	13	3	...
Cancer, Malignant Disease ...	80	...	...	...	...	58	22	4	9	6	8	2	7	2	3	7	9	8	2	4	2	3	4	18	9	...
Bronchitis	116	22	17	...	1	30	46	11	8	5	11	9	7	...	3	4	6	11	14	5	3	5	4	13	1	...
Pneumonia	76	14	20	1	6	30	5	12	4	2	5	1	6	3	3	8	9	3	4	6	4	3	3	14	4	...
Pleurisy	5	...	...	1	...	3	1	1	...	...	1	...	...	...	...	1	...	...	...	1	...	...	1	2	1	...
Other Diseases of Respiratory Organs	13	2	1	...	...	8	2	2	2	...	1	...	...	1	3	1	...	1	...	2	...	...	1	2	...	...
Alcoholism Cirrhosis of Liver ...	25	...	...	...	...	21	4	1	1	1	3	...	3	...	2	...	6	3	2	...	...	1	2	3	...	...
Veneral Diseases	5	4	1	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	1	1	1	...	...
Premature Birth	83	83	...	...	...	...	...	6	8	6	4	1	6	4	4	4	7	2	4	11	2	9	5	2	1	...
Diseases and Accidents of Parturition	7	...	...	...	1	6	...	1	...	...	1	...	...	1	...	...	...	1	1	1	1	1	...	...	...	...
Heart Diseases	173	1	1	4	11	103	53	7	9	17	15	11	17	4	3	11	14	20	10	6	7	11	11	28	6	...
Accidents	44	6	6	6	5	14	7	5	1	1	1	1	10	2	2	2	5	2	3	2	2	3	24	11	...	
Suicides	15	...	...	...	1	13	1	...	...	2	1	1	1	1	...	...	1	1	2	1	...	3	4	...	...	...
All other Causes	626	185	48	19	16	151	207	45	46	44	50	20	71	37	29	43	59	30	33	42	21	24	32	153	33	...
All Causes	1596	406	159	49	73	554	355	128	110	110	114	61	157	72	67	109	159	97	96	105	55	76	80	309	75	...
Non-Residents	75	5	7	6	5	37	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

